THE DEVELOPMENT AND EMPIRICAL EVALUATION OF A STRUCTURAL MODEL OF ENRICHMENT AMONG FEMALE ACADEMICS

by

Petro van Zyl

Thesis presented in partial fulfilment of the requirements for the degree of Master of Commerce (Industrial Psychology) in the Faculty of Economic and Management Sciences at Stellenbosch University

DEPARTMENT OF INDUSTRIAL PSYCHOLOGY

SUPERVISOR: PROF G. GÖRGENS

MARCH 2020

DECLARATION

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ABSTRACT

For centuries, men have dominated the workforce across the world. However, in the last decades since the first democratic election in South Africa in 1994, the amount of women entering the world of work has steadily increased accounting for 43.8% of employees in the second quarter of 2018. Women often have to juggle the roles of wife, mother, homemaker and career. Yet, work obligations and family responsibilities are often incompatible, thus resulting in work-family conflict. The situation in higher education institutions are no different: female academics often have to manage competing teaching responsibilities, student supervision, research and family responsibilities.

Traditionally research has focused on the negative side of the work-family interface. This study focused on the positive side of the work-family interface which presupposes that work and family roles may have a beneficial influence on one another. Set within the framework of Greenhaus and Powell's (2006) work-family enrichment theory, this study investigated the experience of work-family and family-work enrichment among female academics. A structural model of the factors that influence female academics' experience of work-family and family-work enrichment was tested to explicate the psychological mechanisms underlying enrichment, as well as the resources that facilitate greater enrichment.

An *ex post facto* correlational design with a convenience sample of 84 female academics was utilised. The results (analyses conducted with PLS) provided support for five of the ten hypothesised paths. Family time and family support were found to be significant predictors of family-work enrichment, whilst organisational support emerged as a significant predictor of work-family enrichment. Moreover, occupational coping self-efficacy was identified as an outcome of family-work enrichment and a significant predictor of work-family enrichment.

This study intended to contribute to higher education institutions' understanding of the experience of enrichment (both work-family and family-work) among female academics. Based on this knowledge, higher education institutions should attempt design interventions that could potentially enhance enrichment of female employees.

OPSOMMING

Oor die eeue heen het mans die arbeidsmag regoor die wêreld oorheers. In die laaste paar dekades, sedert die eerste demokratiese verkiesing in Suid-Afrika in 1994, het die hoeveelheid vroue wat tot die wêreld van werk toegetree het aansienlik toegeneem, tot so ‘n mate dat vroue in die tweede kwartaal van 2018 43,8% van die arbeidsmag uitgemaak het. Gevolglik moet vroue die rolle van vrou, moeder, tuisteskepper en loopbaanvrou vervul. Tog is werkverpligtinge en gesinsverantwoordelikhede dikwels onversoenbaar, wat lei tot konflik tussen werk en gesin. Die situasie in hoër onderwysinstellings verskil nie: vroulike akademici moet dikwels kompeterende onderrigverantwoordelikhede, studieleiding, navorsing en gesinsverantwoordelikhede bestuur.

Navorsing het tradisioneel gefokus op die negatiewe kant van die werk-gesin interaksie. Hierdie studie fokus op die positiewe kant van die werk-gesin interaksie wat veronderstel dat werk- en gesinsrolle 'n voordelige invloed op mekaar kan hê. Binne die raamwerk van Greenhaus en Powell (2006) se werk-familie verrykingsteorie, ondersoek hierdie studie vroulike akademici se ervaringe van werk-familie en familie-werk verryking. ‘n Strukturele model met die faktore wat vroulike akademici se ervaringe van werk-familie en familie-werk verryking beïnvloed, is getoets om die sielkundige meganismes onderliggend aan verryking te ondersoek, asook die hulpbronne wat tot meer verryking lei.

‘n *Ex post facto* korrelatiewe ontwerp met 'n gerieflikheidsteekproef van 84 vroulike akademici is gebruik. Die resultate (ontledings is met PLS uitgevoer) het ondersteuning verskaf vir vyf van die tien voorgestelde bane. Dit is bevind dat gesinstyd en gesinsondersteuning beduidende voorspellers van familie-werk verryking is, terwyl organisatoriese ondersteuning 'n belangrike voorspeller van werk-familie verryking was. Boonop is werkverwant selfdoeltreffendheid geïdentifiseer as 'n uitvloeisel van familie-werk verryking en as 'n beduidende voorspeller van werk-familie verryking.

Hierdie studie het ten doel gehad om by te dra tot hoër onderwysinstellings se begrip van vroulike akademici se ervaringe van verryking (beide werk-familie en familie-werk). Op grond van hierdie kennis, moet hoëronderwysinstellings poog om

intervensies te ontwikkel wat moontlik die verryking van vroulike werknemers kan bevorder.

ACKNOWLEDGEMENTS

To my supervisor, Prof Gina Görgens, a sincere thank you for your guidance, patience and continuous support. I appreciate the work you have put into this document and I would not have been able to complete this without your input and guidance. You have been an inspiration to me and it has been a pleasure working under your supervision.

Thank you to Prof Martin Kidd for his assistance with the statistical analysis of my data. Thank you for your patience and willingness to answer all my queries.

To my parents, Danie and Elsjé, and my grandmother, Petra, thank you for your love and support throughout my studies. Thank you for believing in me and for providing me with the opportunity to further my studies. Your words of encouragement, guidance and unconditional love meant the world to me.

I also want to thank the rest of my family, my friends and my colleagues for their support. Thank you for always listening patiently when I talk about my thesis (even when you had no idea what I was talking about) – I appreciate your words of encouragement.

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CHAPTER 1: INTRODUCTION

1.1 Women in the workplace

For centuries, men have dominated the workforce across the world (Lues, 2005). Men assumed the role of primary breadwinner and women that of housewife and mother (Jaga, Bagraim, & Williams, 2013). Men dominated over females in all areas of society, particularly in the workplace (Mugweni, 2014). The stereotypical male employee could work long hours without any concern of family responsibility. In contrast, motherhood was generally considered as rendering an employee incapable of performing her job effectively (Cohen & Dancaster, 2009). Further to this, in some countries, evidence of engaging in caretaking of the family was used as an assessment criterion for women who wished to apply for management positions (Mabokela & Mawila, 2004).

Women, under this patriarchal system, were the targets of severe discrimination (Mugweni, 2014). For example, female employees were subjected to wage discrimination and job segregation (Lues, 2005). Women were stereotypically associated with professions of teaching, nursing, social work and clerical work (Mugweni, 2014). Moreover, married women had to pay higher taxes than unmarried women. The most severe form of discrimination, however, was the unfair treatment of pregnant women in the workplace. In South Africa, before 1994, there were no laws to protect pregnant women against unfair treatment in the workplace (Lues, 2005).

The first democratic election brought about several political, economic and social structure changes in South Africa. These changes had a considerable influence on traditional family structures and gender role prescriptions within the country (Van Aarde & Mostert, 2008). The passing of the new Constitution, the *Labour Relations Act* (Act No. 66 of 1995), the *Employment Equity Act* (Act No.55 of 1998), as well as the *Basic Conditions of Employment Act* (Act No. 75 of 1997) led to a greater representation of women in the workforce (Lues, 2005). New labour laws support affirmative action, protect women against unfair discrimination and promote their rights to fair labour practices (Cohen & Dancaster, 2009). The *Convention on the Elimination of All Forms of Discrimination Against Women* (CEDAW), the *Commission for Gender Equality* (CGE), the *Women's Budget Initiative* (WBI) and the

Office on the Status of Women (OSW) further promoted the equitable representation of women in the workplace (Lues, 2005).

Given these changes, a steady increasing amount of women has entered the world of work in the last few decades. Having a purpose in life, other than that of homemaker, give women a sense of confidence, enhance their self-esteem and lead to personal and professional growth (Mugweni, 2014). For some women, however, the decision of entering the labour force is not a voluntary choice, but rather an economic necessity (Cohen & Dancaster, 2009). As a result, dual career couples have increased in the past few years (Van Aarde & Mostert, 2008).

The status and representation of women in the world of work have markedly improved since 1994. This trend has also been evident in the higher education section. In 2012, female academics constituted 44.8% of the permanent instruction staff at South African universities. Female representativity in higher education institutions has remarkably improved since 1994, when women accounted for only 31.1% of academic staff (Department of Education, 2015). According to Van Aarde and Mostert (2008), changing workforce demographics have had a significant impact on the emergence of female scholars in South Africa.

1.2 The history of women in academia

Women's lives and social identities are shaped by the societal, cultural and material conditions around them (Mabokela & Mawila, 2004). Society prescribes certain roles to be male or female and expects men and woman to conform to these roles (Zulu, 2003). For centuries, the roles of women in society have differed from that of men. Historically, women were believed to be subordinate to men: Women were considered to have "different and inferior qualities" (Lues, 2005; Thanacoody, Bartram, Barker, & Jacobs, 2006, p. 539). Women are traditionally viewed as emotional, submissive, dependent, affectionate, nurturing, and not as assertive as males (Zulu, 2003). Because of these commonly held beliefs, only certain roles, activities and responsibilities were deemed suitable for women. Therefore, marriage as well as bringing up a family and taking care of domestic responsibilities, were viewed as the dominant roles of women within society (Lues, 2005; Raburu, 2015). Society's notion of females as secondary citizens deprived women of access to educational and employment opportunities, thus creating a masculine organisational

culture and gender power imbalances in the workplace (Lues, 2005; Thanacoody et al., 2006; Zulu, 2003).

The issue of male dominance and female subordination can also be attributed to the cultural norms governing behaviour in a particular society. Culture influences the manner in which people perceive and react to their environments. Mabokela and Mawila (2004, p. 401) describe cultural prescriptions as "inducing purpose, commitment and order; it provides meaning and social cohesion and clarifies and explains behavioural expectations." In Western countries it is culturally more acceptable for women to be highly educated. African cultures dictate that a woman's first responsibility is to her family and the community (Managa, 2013). The African value system does not differentiate woman as individuals, but as supplements to a greater society (Lues, 2005). Consequently, the majority of African women are still viewed in terms of their traditional roles of wife and mother (Lues, 2005; Managa, 2013).

Seeing that organisations exist and operate within a particular cultural context, cultural beliefs are carried into, and maintained within the workplace (Mabokela & Mawila, 2004; Thanacoody et al., 2006). Consequently, management and employee assumptions and behaviour, as well as organisational structures and functions are influenced by cultural prescriptions (Thanacoody et al., 2006). Mabokela and Mawila (2004) conducted intensive open-ended interviews with female scholars and administrators at four academic institutions. The purpose of the study was to capture each participant's personal experience as a female scholar. The interviews highlighted the continuing impact of culture on the professional experiences of female scholars. The impact of culture was described in two ways, namely (1) broader societal norms and values that influence male and female relationships and, (2) organisational practices and policies that are still male-dominated and marginalise "women's ways of knowing and doing" (Mabokela & Mawila, 2004, p. 406).

Societal norms and cultural prescriptions may provide a plausible explanation as to why the distribution of women among academic faculty members does not reflect the demographic profile of the larger South African society. Prior to 1994, white, male professors dominated higher education (Obers, 2014). In the academic environment, women were traditionally employed as research assistants, administrative officers,

tutors, lecturers or junior lecturers (Mabokela & Mawila, 2004). According to Thanacoody et al., (2006) female academics held fewer positions of power and authority in academic institutions. Gender stereotypes prevented women from occupying elevated management positions (Zulu, 2003). Male-dominated university management believed women to be unproductive and incompetent, and the efforts of women often went unrecognised (Managa, 2013). Male academics would undermine, rather than support female scholars by constantly challenging their authority and expertise (Mabokela & Mawila, 2004). According to Mugweni (2014), the generally male-dominated university management culture negatively impacted women's professional growth and development. Women had limited access to networks and supportive relationships within academia, which facilitates professional growth, information sharing, acceptance and confidence (Obers, 2014; Zulu, 2003).

During recent decades, social structures have undergone considerable changes. The traditional roles of males and females, as prescribed by society, changed significantly: men are no longer seen as the primary breadwinner and woman are no longer limited to the traditional roles of wife and mother (Cohen & Dancaster, 2009). As the female labour force increased, higher education institutions had to realign their policies to promote gender equality and female empowerment (Mugweni, 2014). Zulu (2003, p. 98) defines gender equality as "equal access to opportunities for professional growth and career advancement, equal representation in high level academic and administrative positions as well as equal access to information and promotion opportunities for both men and women".

Despite a greater representation of women in higher education, in recent decades, women are still underrepresented in managerial and research systems (Managa, 2013). The absence of women in higher educational institutions may be attributed to various reasons. According to Mugweni (2014) a prominent reason could be the reluctance of women to apply for senior positions for fear of compromising their family obligations. In addition, Obers (2014) established that most female academics would choose the role of lecturer over that of researcher. Uninterrupted research periods and traveling to international conferences make it difficult for women to attend to their family responsibilities. As a result, married women with children tend to settle for teaching positions. It can, therefore, be argued that family commitments could limit a female academic's career advancement.

1.3 The need for an enrichment structural model

Despite the liberation of women in the workplace, society still views women as the primary caregivers (Obers, 2014). Women therefore fulfil dual roles in society. Women, generally, have to juggle the roles of wife, mother, homemaker and career woman (Zulu, 2003). Such conflicting roles could, however, hamper women's career development, decrease their career satisfaction and may result in an increase in absenteeism and intention to quit (Van Aarde & Mostert, 2008). Work obligations and family responsibilities are often incompatible. As a result, women experience conflict between their work expectations and family responsibilities (Managa, 2013). In the past, women who could not live up to these expectations had to choose between their family and a career (Lues, 2005). Many women interrupted their careers to take care of their home and family responsibilities (Obers, 2014).

Higher Education South Africa (HESA) (2011) indicates that tertiary institutions struggle to retain female academics. Female scholars struggle to maintain a balance between their work and family commitments (Mugweni, 2014). Mastering a heavy teaching load, engaging in research and managing family responsibilities, can be challenging. In a study conducted by Obers (2014, p. 1114), one of the participants stated: "Being a mother and a wife takes up a lot of time, energy and commitment and it is difficult to balance competing demands with work and unfortunately research seems to be the thing most neglected". Female academics, who aspire to advance to senior positions, however, need to engage in meaningful research. Writing and publishing scholarly articles is often stated as a prerequisite for promotion within academia (Mabokela & Mawila, 2004). Low research productivity lowers the competitiveness of female academics (Obers, 2014). It could, therefore, be argued that family responsibilities have an adverse impact on the research productivity and mobility of women within academia (Managa, 2013).

For example, family obligations may also influence the availability of female scholars to attend conferences. Women may be reluctant to travel to international conferences, because they are not comfortable with being away from their children. Attending conferences can strengthen research efforts through collaborations and networking, which is important for accumulating social capital. The *Social Capital Theory of Career Success* aligns access to social capital to career success (Siebert,

Kraimer, & Liden, 2001). Failure to accumulate social capital would most probably restrict the career progression of female academics (Obers, 2014)

An employee's home and workplace are not two separate domains – work and family are interdependent (Baral & Bhargava, 2011). Some (e.g. Jaga et al., 2013) have argued that higher education institutions should attempt to integrate the multiple roles of women by designing interventions to accommodate the family responsibilities of women within academia. Others have argued that the experiences of women in their multiple roles could actually enhance their functioning in other areas of life (Van Aarde & Mostert, 2008). Hence, it could be argued that in order to retain female employees, tertiary institutions should explore the positive side of the work-family interface. Work-family enrichment and related concepts, within the academic environment, should be studied.

Rather than focusing on work-family conflict, it has been argued that the work-family interface should be studied from a positive psychological perspective (Jaga et al., 2013). The positive work-family interface phenomenon presupposes that work and family roles may have a beneficial influence on one another. Positive spillover, enhancement, facilitation and enrichment are used to describe the positive side of the work-family interface (De Klerk, Nel, & Koekemoer, 2012). For the purpose of this study, the focus will be on enrichment. In the article *When work and family are allies: A theory of work-family enrichment,* Greenhaus and Powell (2006, p. 73) define enrichment as the "extent to which experiences in one role improve the quality of life in the other role". Greenhaus and Powell (2006) furthermore propose that the enrichment approach has the potential to lessen the negative impact of work-family conflict.

The *Role Enhancement Hypothesis* can be used to describe the positive interaction between work and family (Jaga et al., 2013). The role enhancement hypothesis implies that resources gained by involvement in the work role, may improve the quality of life in the family domain (Jaga & Bagraim, 2011). Resource gains include skills and perspectives, psychological and physical resources, social capital resources, flexibility and material resources (McNall, Masuda, & Nicklin, 2009). The interaction between work and family is bi-directional. Resources can be transferred from work to family and from family to work (Jaga et al., 2013).

Work-family conflict hampers an individual's functioning and well-being (Jaga et al., 2013). Combining work and family responsibilities results in inevitable conflict and tension (Raburu, 2015). Organisations should strive to minimise work-family conflict by implementing policies and procedures that promote enrichment. By increasing the home, work and personal resources that facilitate enrichment, organisations can improve the well-being of their employees (Jaga et al., 2013).

The experience of enrichment benefits the individual worker, as well as the organisation. In 2008, Van Aarde and Mostert conducted a study to investigate the job and home characteristics associated with negative and positive work-home interaction of South African females. From the results, Van Aarde and Mostert (2008) deduced that involvement in multiple roles leads to greater positive spillover effects between home and work. Therefore, employees who experience enrichment reported greater feelings of accomplishment, confidence, positive affect and self-esteem. Jaga et al. (2013) and Gareis, Bartnett, Ertel, and Berkman (2009) investigated the consequences of enrichment in two separate studies. The results of the two studies were consistent with each other. It indicated that enrichment has the potential to improve an individual's mental health, physical health, life satisfaction and the quality of an individual's personal relationships. Jaga and Bagraim (2011) found that individuals, who experienced enrichment, were better able to cope with stress. Enrichment has been shown to reduce burnout, anxiety, depression and problem drinking among employees (Gareis et al., 2009). Enrichment facilitates greater family satisfaction and improves marital quality (Jaga & Bagraim, 2011; Baral & Bhargava, 2011).

Enrichment has a significant influence on organisational outcomes. Previous studies indicate that the experience of work-family enrichment can have a meaningful influence on an employee's productivity, performance, satisfaction, absenteeism and turnover intention (McNall et al., 2009). Wayne, Randal and Stevens (2006) found the experience of work-family enrichment to be positively related to job and career satisfaction. It could be argued that when organisations effectively implement work-family policies that support enrichment, their employees experience higher levels of positive affect. Employees, who experienced positive affect, felt more positive emotions about their organisation (McNall et al., 2009). Consequently, employees experience a greater sense of organisational commitment. Organisational

commitment refers to the extent to which an employee identifies with, is involved in, and how loyal he or she is to the organisation (Wayne et al., 2006).

It is argued that accumulating knowledge on the dynamics of the work-family interface, especially work-family and family-work enrichment and both the workplace characteristics, as well as home characteristics, that could enhance the experience of enrichment, will greatly benefit an organisation.

1.4 Research initiating question

The study will attempt to answer the following research questions:

Why is there variance in female employees' experience of work-family and family-work enrichment? What are the factors that could influence a female employee's experience of work-family and family-work enrichment? Does spillover account for the transfer of positive experiences from family to work?

1.5 Research objectives

This study aims to provide insight into work-family and family-work enrichment of female academics by investigating the characteristics, as well as the psychological process underlying the dynamic transfer of resources from one domain to the other, that could potentially enhance female academics' experience of work-family and family-work enrichment This knowledge could be useful in developing interventions in order to increase, over time, the retention rates of women in higher education institutions.

The research objectives include to:

a) develop a structural model that depicts the antecedents of female academics' experience of work-family and family-work enrichment; and
b) account for the spillover of positive experiences from family to work[1]; and
c) test the fit of the outer and inner model via Partial Least Square modelling (PLS).

[1] Although the potential spillover can be bi-directional (i.e. from family to work, and work to family), this study could only empirically investigate one proposed spillover direction (i.e. family to work, to work to family), due to data analyses limitations.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

According to the work-family conflict theory, experiences in one role leads to stress, time constraints and dysfunctional behaviour in the other role (De Klerk et al., 2012). Balancing multiple work and family role demands creates conflict, which has a negative impact on a person's quality of life (De Klerk et al., 2012; Jaga & Bagraim, 2011). The role scarcity hypothesis could be used to explain the negative work-family interface. The role scarcity hypothesis assumes that a person possesses a limited and fixed amount of resources (e.g. time, energy and attention) (De Klerk et al., 2012; Van Aarde & Mostert, 2008). Managing multiple roles leads to interrole conflict, as these roles draw on the same, scarce resources (Van Aarde & Mostert, 2008). Balancing several role demands leads to resource depletion, which in turn, leads to work-family conflict (Jaga et al., 2013).

Participation in multiple roles typically leads to resource depletion, which undermines a person's physical and psychological functioning within the competing roles (Vieira, Matias, & Ferreira, 2016). Previous studies indicate that work-family conflict creates dissatisfaction (in both the work and family role), lower levels of productivity and increased absenteeism from work and the family life (Lapierre & Allen, 2006). However, a growing body of research has begun to focus on potential benefits that can come from fulfilling multiple roles. The *role accumulation theory* states that participation in multiple roles produces, rather than depletes, resources (Sieber, 1974). These resource gains could be developmental (the acquisition of skills, knowledge, values or perspectives), affective (alternation in moods, attitude, confidence or other aspects of emotion), capital (acquisition of economic, social or health assets) or efficiency (enhanced focus and attention induced by multiple role responsibilities) (De Klerk et al., 2012). The resource gains in one role have the potential to improve physical and mental well-being, as well as the quality of life in the other role (Jaga et al., 2013).

2.2 Enrichment theory

Greenhaus and Powell (2006) suggested that the term enrichment best captures the positive work-family interface - work and family are seen as "allies rather than enemies" (Dunn & O'Brien, 2013, p. 634; Siu et al., 2010). According to Greenhaus

and Powell (2006), enrichment is bidirectional: resources generated in one role (e.g. work) improve functioning in a second role (e.g. family) (Siu et al., 2010). Work-family enrichment (WFE) occurs when resources gained from work roles improve functioning in the family role (Greenhaus & Powell, 2006). For example, employees are more relaxed and less tired when they leave work to go home to their families, thus reducing emotional exhaustion (Siu et al., 2010, Jaga et al., 2013). Similarly, family-work enrichment (FWE) occurs when resources gained from family roles facilitates improved functioning in the work role (Greenhaus & Powell, 2006). For example, employees who experience positive affect in their family life transfer their good mood to their work setting (Siu et al., 2013).

Greenhaus and Powell (2006) also proposed two pathways by which work and family influences each other: an instrumental and affective pathway (Siu et al., 2010). The instrumental pathway refers to the direct transfer of resources from one role to another. For example, resources developed in role A lead to high performance in role A, which then leads to high performance and positive affect in role B. The affective pathway proposes that resources from work are indirectly transferred to the family domain: resources developed in role A result in positive affect in role A, which then leads to high performance and positive affect in role B (Dunn & O'Brien, 2013).

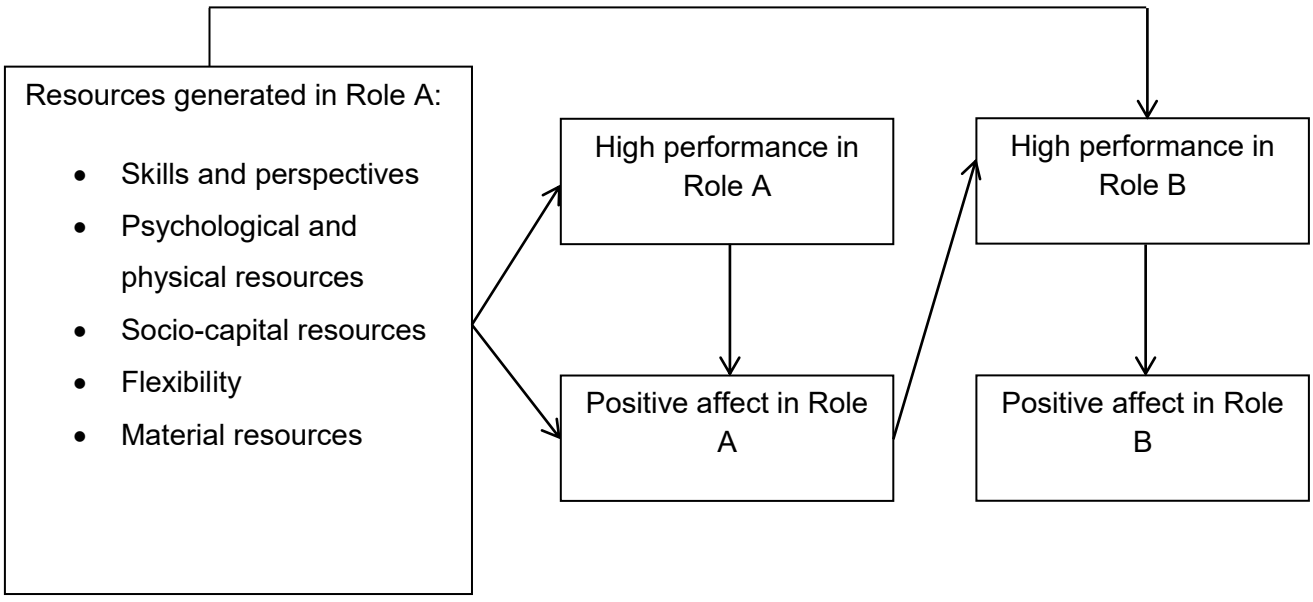

Figure 2. 1. Theoretical model of work-family enrichment. Reprinted from "When work and family are allies: A theory of work-family enrichment," By J.H. Greenhaus and G.N. Powell, 2006, Academy of Management Review, 31, p. 79. Copyright 2006 by Academy of Management Review.

Other theories that underpin the concepts of work-family conflict and work-family enrichment include the *Social Exchange Theory* (Blau, 1964), the *Conservation of Resources* (COR) theory, the *Effort-Recovery* (E-R) Model and the *Job Demands Resources* (JD-R) Model (Jaga & Bagraim, 2011; Van Aarde & Mostert, 2008). These theories will be discussed in more depth in the subsequent section. The age, race, gender, level of education, income, marital status and employment situation of an individual also influences their experience of work-family enrichment (Gareis et al., 2009). In a multicultural society like South Africa, it is important to be aware of the effect of culture on an employee's experience of work-family enrichment, as the experience of enrichment could possibly differ across different cultural groups (De Klerk et al., 2012).

2.3 Resources that drive work-family enrichment

Greenhaus and Powell (2006) identified five types of resources that could potentially facilitate enrichment. These resources include (1) skills and perspectives (task-related cognitive and interpersonal skills, coping skills, multi-tasking skills and knowledge and wisdom derived from role experiences), (2) psychological and physical resources (positive self-evaluations, positive emotions about the future and physical health), (3) socio-capital resources (influence and information derived from interpersonal relationships in work and family roles), (4) flexibility (discretion in time, pace and location at which role requirements are met) and (5) material resources (money or gifts derived from work or family domains) (De Klerk et al., 2012).

The accumulation and preservation of resources play a critical role in the enrichment process. The *Conservation of Resources* (COR) theory and the *Job-Demands Resources* (JD-R) model can be used to explain the importance of resources in the enrichment process (Dunn & O'Brien, 2013). According to Hobfoll's COR theory, people strive to retrain, protect and build resources (Hobfoll, 1989). These resources could include conditions (e.g. marital status), personal characteristics (e.g. self-efficacy) or energies (e.g. time). Hobfoll argued that, in order to obtain and develop more resources, an individual will use resources they currently possess or call on available resources in their environment (Hobfoll, 1989). The depletion of resources associated with conflicting role demands, is less likely to affect people with greater resources (Jaga et al., 2013). These resources may allow employees to cope better

with stress-related variables that are harmful to their well-being (Marais, De Klerk, Nel, & De Beer, 2014).

According to Van Aarde and Mostert (2008), work and home characteristics influence the work-family interaction. The JD-R model organises job characteristics into two broad categories: job demands and job resources. Job demands refer to the physical, psychosocial or organisational features of the job that require continued physical and/or mental effort and are, therefore, associated with certain physiological and/or psychological costs. Job demands could include high work pressure, high physical or emotional demands and role conflicts. Job resources are defined as the physical, psychosocial or organisational aspect of the job that may be functional in meeting job demands and may reduce the associated physiological and/or psychological costs, while at the same time stimulating personal growth and development. Job resources can be located in the task itself or in the context of the task (e.g. organisational resources and social resources). Within the work-family interface, excessive job demands and a lack of job resources lead to work-family conflict. Excessive job demands paired with a lack of job resources hamper physical and psychological functioning in the family domain. Job resources may help to reduce job demands and may assist employees in achieving work roles. Work-family enrichment occurs when employees consider their involvement in the work domain as granting them the resources to enhance their quality of life in the family domain (Vieira et al., 2016). Job resources may stimulate motivational processes, increase engagement and other positive outcomes. The availability of job resources may assist employees in coping with the demanding aspects of their job, thereby stimulating employees to learn and grow in their job, which leads to motivation, feelings of accomplishment and organisational commitment (Van Aarde & Mostert, 2008). These positive organisational outcomes facilitate work-family enrichment, which in turn, improves functioning in the family domain (Jaga & Bagraim, 2011). Van Aarde and Mostert (2008) report that job demands and a lack of job resources have a negative impact on the work-family interface as it depletes functioning in the home domain. Furthermore, job resources have been shown to have a positive impact on the work-family interface, whilst job demands are unrelated to the positive work-family interface (Van Aarde & Mostert, 2008).

Van Aarde and Mostert (2008) identified, after a study of existing literature, the most important job demands and job resources. From these demands and resources, they identified the most influential job and home characteristics in the work-family interface.

The most prominent job characteristics related to (1) employees' workload (i.e. work pressure, work overload and time demands, (2) employees' ability to control the environment in which they work (i.e. autonomy) and (3) social integration and quality interactions at the place of work (i.e. colleague support, supervisor support, instrumental support and role clarity). The most prominent home characteristics were grouped in a similar fashion: (1) home pressure (e.g. having a lot of work to do at home and having to work hard and fast to get things done at home), (2) home autonomy (e.g. having freedom to decide when and how to get things done at home and how much time you want to spend on a task), and (3) home support (e.g. emotional and instrumental support from people in your private life as well as having adequate equipment to carry out tasks at home (Van Aarde & Mostert, 2008).

The concepts of enhancement, positive spillover and facilitation are closely related to the concept of work-family enrichment (Marais et al., 2014). Enhancement refers to experiences or resources that benefit the employee in several life roles (Jaga et al., 2013). Positive spillover refers to the transfer of positive experiences (e.g. moods, skills, values and behaviours) from one life role to another (Gayathri & Karthikeyan, 2016; Lapierre & Allen, 2006). Resources that originate in the work domain are transferred to the home sphere (Van Aarde & Mostert, 2008). Work-family enrichment builds on enhancement and positive spillover. The transfer of resource gains from one role to the next is critical to the process of work-family enrichment (Gayathri & Karthikeyan, 2016). Work-family enrichment, however, requires more than just the transfer of resources from one domain to the other. The transfer of resources should lead to improved performance or affect for the individual. Facilitation focuses on the positive outcomes of the interaction between the work and the family domain. Thus, for enrichment to occur, two conditions need to be satisfied: (1) The transfer of resource gains from one role to the next and (2) the transfer of resources must result in an improvement of performance in the receiving domain (family or work life) (Jaga & Bagraim, 2011).

2.4 Family resources

Less attention has been paid to the role of the family in assisting employees to balance work and family demands (Korabik, Lero, & Whitehead, 2008). Previously, job responsibilities were thought to be incompatible with home or family responsibilities (Van Aarde & Mostert, 2008). However, resources generated in the family domain could potentially buffer the negative consequences of work-related stressors (Baral & Bhargava, 2011; Gareis et al., 2009). The resources gained from the family domain have the potential to positively influence an individual's work-family experiences. Home resources can be defined as those facets of the family domain that helps to reduce demands from the family role and foster development, growth and well-being in the family domain (Marais et al., 2014). The availability of resources in the family domain influences the extent to which one's family life can enhance one's functioning in the work domain. The resources gained in the family domain can be transferred (spill over) to an employee's work life, where it has the potential to improve the employee's functioning in his or her work life (Hakanen, Peeters, & Perhoniemi, 2011; Wayne et al., 2006). When home resources exceed family demands it equips an individual to manage work-family conflict (Gareis et al., 2009). Marais et al. (2014) conducted a study to determine the relationship between work resources, home resources, work engagement, family engagement and work-family enrichment. Results of the study identified home support as a significant predictor of family-work enrichment.

2.4.1 Family support

The process of family-work enrichment is facilitated by the availability of social resources. Social resources are crucial in making a person feel valued, loved and cared for (Wayne et al., 2006). Social support can be defined as an interpersonal transaction involving emotional concern, instrumental aid, information or appraisal (Baral & Bhargava, 2011). Social support is generally considered as a coping mechanism (Gayathri & Karthikeyan, 2016). Social support can originate from work resources (e.g. co-workers and supervisors) or non-work resources (e.g. spouse and family members). Family support in the form of encouragement, information, advice and help, can improve an employee's functioning in the work domain (Baral & Bhargava, 2011). Family support plays an extrinsic motivational role in the family-work enrichment process (Siu et al., 2013). Supportive family experiences equip

employees to work longer hours and to become more engaged in developmental opportunities (Hakanen et al., 2011). Family and spousal support motivate employees to feel more positive about their jobs, to work harder and allow them greater control over the pace and timing of their work. Employees can participate in work activities and developmental opportunities without worry or concern for family responsibilities. Home resources enable employees to gain skills and perspectives and to better equip them with the ability to solve problems in the workplace (Marais et al., 2014).

King, Mattimore, King, and Adams (1995) identified two types of social support that have been empirically validated: emotional and instrumental support. Emotional support can be defined as the expression of feelings to enhance the positive affect and behaviour of others. Emotional support has the potential to positively influence an individual's work life, as these emotions and behaviours influence an individual's experience of positive affect and functioning in the work domain (Wayne et al., 2006). Lapierre and Allen (2006) propose that emotional support from family members could have a calming effect on employees when they are at home, thus suggesting the family role to have a less strenuous effect on the work domain. Therefore, it can be argued that emotional support reduces strain-based interactions with work, thereby improving job and life satisfaction (Hakanen et al., 2011; Lapierre & Allen, 2006). Instrumental support refers to the behaviours and attitudes of family members aimed at assisting employees with the day-to-day activities (Wayne et al., 2006). For example, Marais et al. (2014) has reported that relieving employees of their household tasks provides them with more time and energy to carry out their work activities. Satisfaction with household arrangement leads to greater energy and positive affect (Hakanen et al., 2011). It could be argued that, due to positive spill-over, support from family would allow employees to invest more time and energy into their work and such employees would experience their work role to be more fulfilling. Thus, greater energy and positive affect will be available to be transferred to the work domain, resulting in greater family-work enrichment (Wayne et al., 2006). This, in turn, could lead to greater satisfaction in the family domain, as employees are able to transfer energy and motivation gained from the work domain to the family domain.

Wayne et al. (2006) attempted to study the antecedents of work-family and family-work enrichment, as well as the manner in which enrichment relates to certain

organisational outcomes. Wayne et al. studied the work-family support antecedents of enrichment, particularly the use of family-friendly benefits, family-supportive culture and family support. The researchers found that the emotional support received from one's family strongly predicted family-work enrichment. Instrumental support, however, did not relate to family-work enrichment as strongly as emotional support. Consequently, Wayne et al. suggests that it is more helpful for family members to be available to hear their family members' work concern and make them feel their job is important, than it is for them to help out with household activities during difficult times at work. However, the influence of instrumental support on family-work enrichment should not be ignored: The Wayne et al. (2006) study did also indicate a significant relationship between instrumental support and family-work enrichment.

Seeing as family support, be it emotional or instrumental, could potentially have a positive impact on family-work enrichment, the following hypothesis is proposed:

Hypothesis 1: Family support has a positive linear relationship with family-work enrichment.

2.4.2 Family time

Family is an important resource that buffers employees from the stressors of everyday life. Demerouti, Bakker, Geurts, and Taris (2009) argue that adequate recovery on a daily basis is vital for ensuring well-being and job performance. The inability to recover from work stressors may lead to exhaustion, loss of function, mental and physical impairment (Singh, Burke, & Boekhorst, 2016; Sonnetag & Zijlstra, 2006). Sonnetag and Zijlstra (as cited in Singh et al., 2016, p. 234) define recovery as "a person's desire for being – temporarily – relieved from exposure to stressors in order to replenish resources". Recovery relieves an individual from the work-related demands imposed on them and grants them the opportunity to restore their intellectual and physical energy (Sonnetag & Zijlstra, 2006). For example, when employees spend quality time with their family (i.e. family time), it provides them with a much needed break from their work life (Korabik et al., 2008).

Sonnetag and Fritz (as cited in Oerlemans, Bakker, & Demerouti, 2014) used the term recovery experiences to describe the attributes of off-the-job activities that contribute to recovery. These recovery experiences include psychological detachment, relaxation and the experience of mastery. Psychological detachment

and relaxation allow an individual to disengage from the work environment, whilst mastery enables the individual to acquire new resources, which help to restore threatened resources (Singh et al., 2016). Psychological detachment is a psychological experience used to describe an individual's sense of being away from work (Demerouti et al., 2009). However, merely being physically away from work is not sufficient to experience psychological detachment. Psychological detachment refers to "mental disengagement during off-work hours" (Sonnetag, 2012, p. 114). Therefore, psychological detachment from work entails both refraining from work-related activities and the absence of work-related thoughts and feelings (Fritz, Yankelevich, Zarubin, & Barger, 2010; Sonnetag, 2012). Relaxation refers to low baseline activities involving positive affect, whereas mastery refers to the opportunity to learn new skills and knowledge in non-work activities (Singh et al., 2016).

Singh et al. (2016) argue that the quality of a recovery event plays an important role in the recovery process. The extent to which an individual perceives a recovery event as pleasurable or positive influences the recovery process (Sonnetag & Zijlstra, 2006). Consequently, Sonnetag and Zijlstra argue that individuals who experience a recovery event as pleasurable enjoy a higher degree of recovery than individuals who do not. Frederickson (as cited in Oerlemans et al., 2014) found that happiness may aid individuals in acquiring personal resources (physical, psychological and social resources), which assist them in confronting future demands.

According to Oerlemans et al. (2014) some off-the-job activities (e.g. work during off-the-job time) may hinder recovery, whereas other activities may enhance recovery (e.g. social activities). Social activities include activities that focus on social contact, for example going to a party, dining or phoning other people (Demerouti et al., 2009). During these activities, people generally meet or spend time with family or friends. Social activities facilitate recovery since it provides the opportunity for social support (Oerlemans et al., 2014). According to Bakker, Demerouti, and Euwema (as cited in Demerouti et al., 2009) social support has been found to reduce the negative impact of job demands and improve well-being. Furthermore, social resources draw on resources (cognitive and physical resources) other than those already used during the workday (Oerlemans et al., 2014; Van Hooff, Geurts, Beckers, & Kompier, 2011).

Therefore, it can be argued that quality time with family could possibly enhance employees' capability to recover adequately after a day at work. The potential benefits of spending time with family can be best understood by studying the *Effort-Recovery* (E-R) model. The E-R model proposes that excessive demands in the work domain will not result in unfavourable health outcomes in the family domain, as long as adequate recovery takes place during time in the family domain, before the employee returns to work. However, it is important to engage in family-related activities that repair the negative strain effects of the work domain (Demerouti et al., 2009). It could, therefore, be argued that spending quality time with one's family, which facilitates adequate recovery, leads to a spillover of positive feelings from the family domain to the work domain. Moreover, Marais et al. (2014) found that employees, who are involved in and experience a true family life, generate supportive family resources. These resources allow the employee to be a better worker and to experience greater job satisfaction.

Family time is a complex and multidimensional construct. In an attempt to examine the emotional dimensions of family time, the *Alfred P. Sloan Centre on Parents, Children and Work* conducted the 500 Family study (Korabik et al., 2008). They identified seven main activities which constitutes family time, namely (1) direct interaction with family members (e.g. activities such as talking to, playing with, holding and kissing spouse and/or child), (2) household related activities (e.g. cleaning, repairing and cooking, (3) religious activities (e.g. participating in different religious events, (4) leisure activities (e.g. watching a movie, going to the theatre, watching television or playing a board game or computer game with one's children), (5) social activities (e.g. talking to and playing with friends or family, partying and celebrating), (6) assistance to child (e.g. helping your child with homework, picking up the child and putting the child to bed) and (7) family means (e.g. eating meals together with one's family).

After a review of previous studies on family time, Lesnard (2008) found that most publications reduced the concept of family time to activities performed with children. Viera et al. (2016) identified parent-child interaction to be a significant predictor of an employee's experience of family time. Viera et al. found that parents' time and strain difficulties affected their family experiences. Generally, it could be argued that employees with small children could experience greater difficulty in managing work

and family roles, as small children require more parental time and demand greater parental effort and attention to satisfy their instrumental and emotional needs. In the article *Time with Children: The Impact of Couples' Work-Time Commitments,* Nock and Kingston (1988) studied the extent of the trade-off between parents' time commitments to their work and time with their families. An analysis of the detailed time diaries of an American national sample of married couples with children, indicated that both the presence of young children and the number of children in the family are predictors of mother's time spent with their children. Mothers with children under the age of three were estimated to spend on average about two more hours with children than their counterparts without children of such a young age. Nock and Kingston (1988) also found that having more children require more time for mother-child contact.

For the purpose of this study, family time will constitute social activities performed with family members, which facilitates adequate recovery. In this study, four of the seven activities identified by the 500 Family study will be used to define family time, assuming that they facilitate adequate recovery, namely (1) direct interaction, (2) leisure activities, (3) social activities and (4) family means. Thus, it is argued that:

Hypothesis 2: Family time has a positive linear relationship with family-work enrichment.

2.5 Work resources

It has been proposed that work-family enrichment enhances an individual's quality of family life, therefore improving their functioning in the family domain (Jaga & Bagraim, 2011). An employee's experience of work-family enrichment is primarily influenced by organisational conditions and workplace culture (Korabik et al., 2008). According to Jaga et al. (2013), it has been shown that positive resources that facilitate work-family enrichment benefits employees more than implementing remedial interventions. Resource gains from work give workers a sense of fulfilment in their jobs, which in turn improve their experiences in the family life (Jaga et al., 2013). Hakanen, Bakker, and Schaufeli (as cited in Marais et al., 2014) defines work resources as the physical, social, psychological and organisation aspects of the job that can assist employees in achieving work goals while simultaneously stimulating personal growth, development and learning. Odle-Dusseau, Britt, and Greene-

Shortridge (2012) identified the following home resources that play an important role in the work-family enrichment process: formal organisational policies and benefits available to employees, informal and emotional support (from co-workers or supervisors), as well as a workplace that is supportive of the use of these types of policies (policies that acknowledge family supportive behaviour). McNall et al. (2009) identified flexible scheduling and control over work (i.e. work autonomy) as significant predictors of work-family enrichment. For the purpose of this study, flexible working arrangements, supervisor and co-worker support, and a family-friendly work culture will be studied as antecedents of work-family enrichment.

2.5.1 Flexible working arrangements

The changing workforce dynamics have resulted in an increase in the use of flexi time, flexi schedules, compressed work weeks, job sharing, telecommunicating, part time work and child care, as well as care for the elderly. However, employees with less flexible work roles generally struggle to manage demands from both the work and family domain (Rastogi, Rangnekar, & Rastogi, 2016). An important driver of work-family enrichment is flexibility. According to Greenhaus and Powell (2006), flexibility refers to the discretion to determine the timing, pace and location at which role requirements are met. Flexibility in one's work role, allows employees to engage more fully in family activities, which increases their family performance (De Klerk et al., 2012). Lambert, Marler, and Guetal (as cited in McNall et al., 2009, p. 62) define a flexible working arrangement as "employer provided benefits that permit employees some level of control over when and where they work outside of the standard workday."

Rastogi et al. (2016) identifies two types of flexible working arrangements, namely temporal flexibility and operational flexibility. Temporal flexibility is defined as "the degree to which an employee chooses where to work and when to work within certain guidelines offered by the organisation" (p. 7). Consequently, employees determine their own working hours and workspace. Flexi time, compressed work weeks, telecommuting, virtual teams, a virtual office and job sharing could be considered as temporal flexibility. Flexible work schedules prevent the work domain from interfering with the family domain, thus increasing productivity, performance and job satisfaction (McNall et al., 2009). Employees who utilize telecommuting will save

time, as they do not have to travel to the office – freeing more time for work and taking care of one's family (Rastogi et al., 2016).

Operational flexibility refers to "control over the conditions of work", hence promoting flexible work processes (Rastogi et al., 2016, p. 8). Job autonomy refers to the ability to influence the planning of one's work activities. An employee is granted the freedom to decide for themselves how and when they want to carry out their work activities, they can decide how much time they want to spend on a task and they are allowed to solve problems that arise in their work by themselves (Van Aarde & Mostert, 2008). Jaga et al. (2013) found autonomy, decision latitude and task variety to be important predictors of work-family enrichment. Employees who perceive themselves in control of their working conditions experience greater job satisfaction and well-being. Furthermore, the perceived control over working conditions are associated with lower levels of work-family conflict, job dissatisfaction and negative physical and psychological health outcomes (Richman, Civian, Shannon, Hill, & Brennan, 2008). Job autonomy has been linked with intrinsic motivation: the perceived control over their work and family life, plays a major role in keeping employees satisfied, productive and motivated (Rastogi et al., 2016). Therefore, an employee is better equipped to manage family demand, thereby improving their performance in the family domain (Baral & Bhargava, 2011; Rastogi et al., 2016). Employee's perception of control in the workplace has been shown to increase positive affect in the work role, which will spill over to the family domain. For example, the positive affect employees experience could improve their parenting role or their interactions with their family (McNall et al., 2009).

The *signalling theory* can be used to predict the positive outcomes of employing flexible working arrangements in an organisation. The signalling theory proposes that an organisation uses flexible working arrangements to 'signal' their concern and care for employees. Employees who perceive their organisations to be caring and genuinely interested in their well-being, will display higher organisational commitment, organisational citizenship behaviour and employee engagement (McNall et al., 2009).

Allen (2001) conducted a study to examine the perceptions of employees regarding the extent to which their organisation is family-supportive. The results of the study

indicated that the availability of flexible working schedules alone has a relatively small effect on job attitudes and experiences. Consequently, Allen (2001) suggests a benefit availability score and a benefit usage score to be computed for each category of benefits.

For the purpose of this study, flexible working arrangements were measured in terms of temporal flexibility (flexi schedules and location of work) only (i.e. operational flexibility was not measured). Benefit availability as well as benefit usage, in terms of temporal flexibility was measured. It is, consequently, hypothesised that flexible working arrangements influences an employee's experience of work-family enrichment.

Hypothesis 3: Flexible working arrangements have a positive linear relationship with work-family enrichment.

Nock and Kingston (1988) report that the time parents spent at work, limited their time with their children. Nock and Kingston (1988) studied the parent-child contact among working mothers and non-working mothers. They found that mothers who do not work spend on average twice as much time with their children, as mothers who were employed full-time. Therefore, it can be argued that working couples would prefer flexible work arrangements as it would allow them to spend more quality time with their families. Long working hours depletes an employee's physical and psychological resources and, as a result, employees arrive home feeling fatigued and drained (Demerouti et al., 2009). Moreover, having to perform household and child-care activities after work while already fatigued, could have a detrimental effect on an employee's ability to adequately recover after work. As flexible work arrangements give employees more control over their work schedules, it may help them to better manage workplace and family demands, thereby facilitating adequate recovery (McNall et al., 2009).

Consequently, it is argued that flexible working schedules may enable employees to spend more quality time with their families, thus allowing them to experience true family life. Therefore, the following hypothesis is proposed:

Hypothesis 4: Flexible working arrangements have a positive linear relationship with family time.

2.5.2 Organisational support

According to Odle-Dusseau et al. (2012) organisations should facilitate a culture for sharing concerns. Employees should be encouraged to share their concerns with managing the work and family domain. Employees who talk to their co-workers or their supervisors about their problems, will feel less stressed and more capable of managing conflicting demands from the work and home domain. Organisational support (from co-workers or supervisors) in the form of emotional support, role-modelling, supportive work-family behaviour, direct instrumental support or general creative management will assist employees to successfully integrate work and family role demands (Baral & Bhargava, 2011; Jaga et al., 2013). Supportive behaviour from co-workers and supervisors has been shown to increase job satisfaction, which spill over into the family domain where it will result in greater feelings of security, confidence, accomplishment and positive affect (Siu et al., 2013).

Organisational support can be considered socio-emotional in nature. By providing employees with instrumental support, supervisors can assist employees in their efforts to integrate work and family roles. By allowing employees to freely schedule their work hours or to take leave when there is a family emergency, supervisors express their empathy and concern for employees' work-family challenges (McNall et al., 2009). By affirming that employees' family responsibilities will not be held against them, supervisors increase employees' confidence and assist them in preventing the tension and stress that may arise from juggling work and family demands.

Siu et al. (2013) reports that supervisor support is positively associated with job satisfaction. The *Social Exchange Theory* (Blau, 1964) can be used in an attempt to comprehend this interaction: when employees perceive their supervisors to be supportive, they feel obliged to return the favour in the form of positive feelings towards their job and the organisation, as well as exerting greater effort in completing their tasks. The concept of reciprocity is central to the social exchange theory: individuals reciprocate in the form of positive feelings towards the domain that provided the resource (i.e. social support).

Co-workers who take the time to listen and to sympathise with a fellow employee's problems can also assist them in better managing their work and family life. By actively listening to a co-worker's problem, showing understanding and providing

them with information or advice, co-workers can attempt to increase an employee's satisfaction in both the work and the family domain. As a result, the experience of supportive co-workers and supervisors facilitate more positive affect, energy and confidence in an employee, which can be transferred to the family role, thus enabling work-family enrichment.

For the purpose of this study, organisational support will constitute support from both supervisors and co-workers. Therefore, the following hypothesis can be formulated:

Hypothesis 5: Organisational support has a positive linear relationship with work-family enrichment.

2.5.3 Family-friendly organisational culture

Thompson, Beauvais, and Lyness (1999, p. 394) define a family-friendly organisational culture as "the shared assumptions, beliefs, and values regarding the extent to which an organisation supports and values the integration of employees' work and family lives." Family supportive benefits could include information and referral services for child care, special care services and resources for caring for elderly parents or handicapped children, child care subsidy and the implementation of flexible working arrangements (McNall et al., 2009). Resources such as time, flexibility, advice and self-acceptance are facilitated by a family-supportive environment. As a result, employees will have fewer work demands at the cost of family time, fewer negative career consequences associated with family choices, and employees will experience greater work-life balance, increased performance, and well-being in both the work and the family domain (Wayne et al., 2006). Family-friendly policies and practices improve the attraction and retention of current and potential employees. It also improves an organisation's corporate reputation (Jaga & Bagraim, 2011). Therefore, organisations should implement policies and practices that facilitate work-family enrichment (Jaga & Bagraim, 2011). Therefore, the following hypothesis of the effect of family-friendly organisational culture on work-family enrichment, is proposed:

Hypothesis 6: Family-friendly organisational culture has a positive linear relationship with work-family enrichment.

Allen (2001, p. 415) reports that "although the implementation of flexible work schedules can help employees to better manage their multiple work and non-work responsibilities, the availability of these benefits alone does not address fundamental aspects of the organisation that can inhibit employees from successfully balancing career and family." Employees' perceptions regarding the extent to which the organisation is family supportive, influences employees' use of family-friendly benefits. Employees will not use family-friendly benefits if it could potentially jeopardise their career (Allen, 2001; Dolcos & Daley, 2009). Therefore, the organisation's culture and norms should reflect openness to alternative work schedules (Dunn & O'Brien, 2013). A supportive family-friendly culture will not penalise employees for devoting time to their family (Wayne et al., 2006). Such a culture reassures employees that their family life, as well as the responsibilities that come with it, will not be held against them (Baral & Bhargava, 2011). Furthermore, work-life policies should incorporate perceptions of inclusion: employees should feel valued and accepted. A work-life policy that fulfils personal needs and communicates the organisation's concern for the well-being of employees, promote perceptions of inclusion (McNall et al., 2009). Therefore, it is argued that family-friendly organisational culture does not only, potentially, have a direct effect on work-family enrichment as argued in the previous section. The effect of family-friendly organisational culture, reflected in employees' perceptions regarding the extent to which the organisation is family supportive, could influence the positive effects (e.g. work-family enrichment) of the use of family-friendly benefits (such as flexible work arrangements). It is, therefore, argued that family-friendly organisational culture may possibly moderate the strength of the relationship between flexible work arrangements and work-family enrichment. That is, two individuals with different levels of perceived family-friendly organisational culture, will report different levels of work-family enrichment, when engaging in a similar extent in flexible work arrangement. Thus, the following hypothesis is proposed:

Hypothesis 7: Family-friendly organisational culture moderates the relationship between flexible working arrangements and work-family enrichment.

2.6 Occupational coping self-efficacy

In a South African study on the work-home interaction of females employed in corporate companies and hospitals, Van Aarde en Mostert (2008) suggested that the

role of personality variables (mastery, hardiness, extraversion and positive affectivity) in the work-family interface should be investigated, in addition to job and home characteristics. Grandey, Cropanzano, Grzywacz, and Marks (as cited in Van Aarde & Mostert, 2008) report that high levels of hardiness, extraversion and self-esteem were associated with lower levels of work-family conflict and higher levels of work-family enrichment.

Gayathri and Karthikeyan (2016) propose that individuals with high self-efficacy are more capable to utilise resources gained in participating in multiple roles. Bandura (as cited in Gayathri and Karthikeya, 2016) defines self-efficacy as people's beliefs about their abilities to successfully perform a given task. To determine whether higher levels of self-efficacy would have an impact on an employee's experience of enrichment, Gayathri and Karthikeyan (2016) conducted a study in which they analysed the relationships between self-efficacy and work-family and family-work enrichment. The results of the study indicated self-efficacy to be significantly related to work-family enrichment, as well as family-work enrichment. Gayathri and Karthikeyan (2016) argue that high self-efficacy equips the individual with the ability to learn new skills, knowledge, values, and perspectives, which may assist them in better managing their multiple roles. Individuals with high levels of self-efficacy were also found to experience more positive affect and confidence, which allowed them to better utilise the economic assets of their work and to pursue new opportunities. Thus, they concluded that "the higher the level of self-efficacy, the higher the level of enrichment" (p. 30).

However, it is argued that for the purpose of this study it would be beneficial to examine a more specific type of self-efficacy, namely occupational coping self-efficacy. Occupational coping self-efficacy (OCSE) relates to an individual's beliefs about their ability to cope with work-related stressors (Pisanti, Van Der Doef, Maes, Lombardo, Lazzari, & Violani, 2015). OCSE is more specific than generalised self-efficacy as it focuses on an individual's beliefs about their ability to deal with situational stressors and the coping abilities individuals utilise to deal with the stressors they encounter in the workplace (e.g. work overload and conflict with co-workers or supervisors) (Pisanti et al., 2015). Pisanti et al. (2015) and Pisanti, Lombardo, Lucidi, Lazzari and Bertini (2008) argue that individuals with higher levels of OCSE are more inclined to approach challenging environmental demands in an

active and persistent way, thus promoting behavioural and cognitive adjustments. By contrast, individuals with lower levels of OCSE view demanding tasks as stressful and are more likely to direct greater energy towards dealing with the increased emotional distress.

It can therefore be argued that OCSE is positively related to employee well-being. High levels of OCSE are associated with physical health, better psychological well-being and job satisfaction (Pisanti et al., 2008; Vermaak, 2015). Furthermore, Viera et al. (2016) found active coping strategies (such as encapsulated in the concept of OCSE) to be related to an individual's ability to balance work and family. Individuals who use active coping strategies are more likely to seek social support for both emotional and instrumental reasons, to engage in problem-solving coping, to engage in positive reappraisal and to use positive self-talk.

Thus, considering Gayathri and Karthikeyan's (2016) findings on self-efficacy and the proposed beneficial effect of OCSE on work-family enrichment, the following hypotheses can be formulated:

Hypothesis 8: Occupational coping self-efficacy has a positive linear relationship with work-family enrichment.

It can be argued that positive resources, experiences and emotions feed an employee's beliefs about their capabilities. Employees who experience family-work enrichment are more likely to experience positive emotions and thoughts resulting from high levels of support at home (Hakanen et al., 2011). In a study conducted on South African women by Van Aarde and Mostert (2008), support was found for the positive interaction between family resources and female employees' beliefs about their capabilities. Their study found that women who receive high levels of support from home, learn more skills which, in turn, enhances feelings of accomplishment. The interaction between family resources and self-efficacy can be understood by drawing on the theoretical foundations of *Social Cognitive Theory*. According to Bandura (1986), social cognitive theory postulates that an individual's self-efficacy beliefs are shaped by personal, behavioural and environmental factors. Thus, it can be argued that by experiencing family-work enrichment, an employee experiences greater positive resources which, in turn, enhance their belief about their ability to

deal with stress that may arise from managing conflicting role demands (Chan, et al., 2016).

Employees with high levels of self-efficacy are more capable of managing work and family responsibilities as they are equipped with greater coping resources: a highly self-efficacious employees demonstrate pro-active coping strategies when dealing with stress resulting from conflicting role demands (Chan et al., 2016; Ten Brummelhuis & Bakker, 2012). Therefore, support from family or spending quality time with family may counterbalance the resource drain associated with managing work-family conflict (Ten Brummelhuis & Bakker, 2012). Consequently, a positive gain spiral occurs in which resources accumulate: individuals with greater resources are more likely to avoid difficult or unpleasant situations thereby allowing them to invest in gaining more resources (Hakanen et al., 2011; Ten Brummelhuis & Bakker, 2012).

Based on the theoretical notions of the social cognitive theory and the logic underlying the positive gain spiral, the following hypothesis was formulated:

Hypothesis 9: Family-work enrichment has a positive linear relationship with occupational coping self-efficacy (OCSE).

Pisanti et al. (2015) suggest that the extent to which organisational support is successful in buffering work-related stressors may be dependent on an individual's level of self-efficacy. Moreover, in a study by Stetz, Stetz, and Bliese (2006) on the moderating effect of self-efficacy in the social support, stressor-strain relationship, corroborates Pisanti et al. (2015)'s assumption. Stetz et al. (2006) found that when individuals with higher levels of self-efficacy received support, they were more likely to view the support as helpful, whereas individuals with lower levels of self-efficacy did not consider the support to be helpful. It could be argued that individuals with higher self-efficacy have confidence in their abilities and generally have more positive thoughts about their work. Consequently, the support they receive act as a buffer against stressful work events (Pisanti et al., 2015). Low self-efficacy individuals, however, dislike a supportive work environment as it makes then even more self-conscious of their perceived inadequacies (Stetz et al., 2006). Consequently, organisational support worsens a stressful work situation for individuals with lower levels of self-efficacy.

Hence, for the purposes of this study it is argued that OCSE moderates the effect of organisational support on work-family enrichment. Thus, the following hypothesis can be formulated:

Hypothesis 10: Occupational coping self-efficacy moderates the relationship between organisational support and work-family enrichment.

Based on all the arguments presented in this chapter, all the individual paths were incorporated into a comprehensive structural model, the proposed *Enrichment Structural Model.* The model is visually depicted in figure 3.1 in chapter 3.

2.7 Conclusion

This chapter provided an overview of Greenhaus and Powell's (2006) enrichment theory, as well as the importance of resources (i.e. resource generation and accumulation) in the enrichment process. Further to this, a number of home and work resources were identified that play a key role in the experience of enrichment among female academics. Based on the theoretical arguments presented, hypotheses were identified and captured in the proposed *Enrichment Structural Model* (figure 3.1). The following chapter will describe the research methodology that was utilised in this study.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

The research initiating questions for this study were, "*Why is there variance in female employees' experience of work-family and family-work enrichment?", "What are the factors that could influence a female employee's experience of work-family and family-work enrichment?"* and *"Does spillover account for the transfer of positive experiences from family to work?"* Through theorising, a structural model was developed in an attempt to explore the nature of enrichment and its antecedents. The model depicts the structural paths between work-family enrichment, family-work enrichment and the latent variables that influence an individual's experience of these constructs. To gain a valid understanding of the phenomenon of interest, the structural model was empirically tested to determine the extent to which the model fits the available empirical data (Babbie & Mouton, 2001). The structural model was empirically tested via the principles of the scientific method. An objective, logical and systematic approach to research is implied by the scientific method, thereby ensuring the attainment of valid explanations of the phenomena of interest (Kothari, 2004).

This chapter will explore the methodological process, as well as the rationale underlying the various methodological decisions. The research hypotheses, the research design, the sampling design, the measurement instruments, and the statistical analysis techniques utilised in this study, are discussed in the sections below.

3.2 Research purpose

The purpose of this research study was to gain insight into work-family and family-work enrichment of female academics by investigating the different resources that possibly influence both types of enrichment, as well as the psychological process underlying the dynamic transfer of resources from one domain to the other. De Klerk et al. (2012) define enrichment as the extent to which experiences in one role can improve the quality of life in another role. Enrichment presupposes that work and family roles may have a beneficial influence on one another. A review of existing literature on the topic of work-family enrichment indicated that the construct is bi-

directional[2]: resources generated in the work role improve functioning in the family role (work-family enrichment), and resources gained in the family role improve the functioning in the work role (family-work enrichment). This study focused on the organisational, as well as home and family factors which could potentially influence female scholars' experience of work-family and family-work enrichment, as well as the spillover effect from family-work enrichment to work-family enrichment.

Studying the antecedents of enrichment may provide organisations with a better understanding of the resources that facilitate enrichment. Consequently, these insights may help inform organisational interventions to modify the organisational environment accordingly, so as to allow greater experiences of enrichment amongst its employees.

3.3 Research initiating question and objectives

This study aimed to investigate the following research questions: "*Why is there variance in female employees' experience of work-family and family-work enrichment? What are the factors that could influence a female employee's experience of work-family and family-work enrichment?" "Does spillover account for the transfer of positive experiences from family to work?"*

The research objectives include to:

a) develop a structural model that depicts the antecedents of female academics' experience of work-family and family-work enrichment; and
b) account for the spillover of positive experiences from family to work; and
c) test the fit of the outer and inner model via Partial Least Square modelling (PLS).

The proposed *Enrichment Structural Model* is depicted in figure 3.1.

[2] The bi-directional nature of enrichment could not be tested as the PLS-SEM technique cannot be applied to a structural model with circular relationships between the latent variables. Instead, emphasis was placed in this study on the antecedents that account for the variance in both work-family and family-work enrichment. In addition to the antecedents, on possible mechanism (i.e. OCSE) of the potential spillover from family-work to work-family enrichment was also tested.

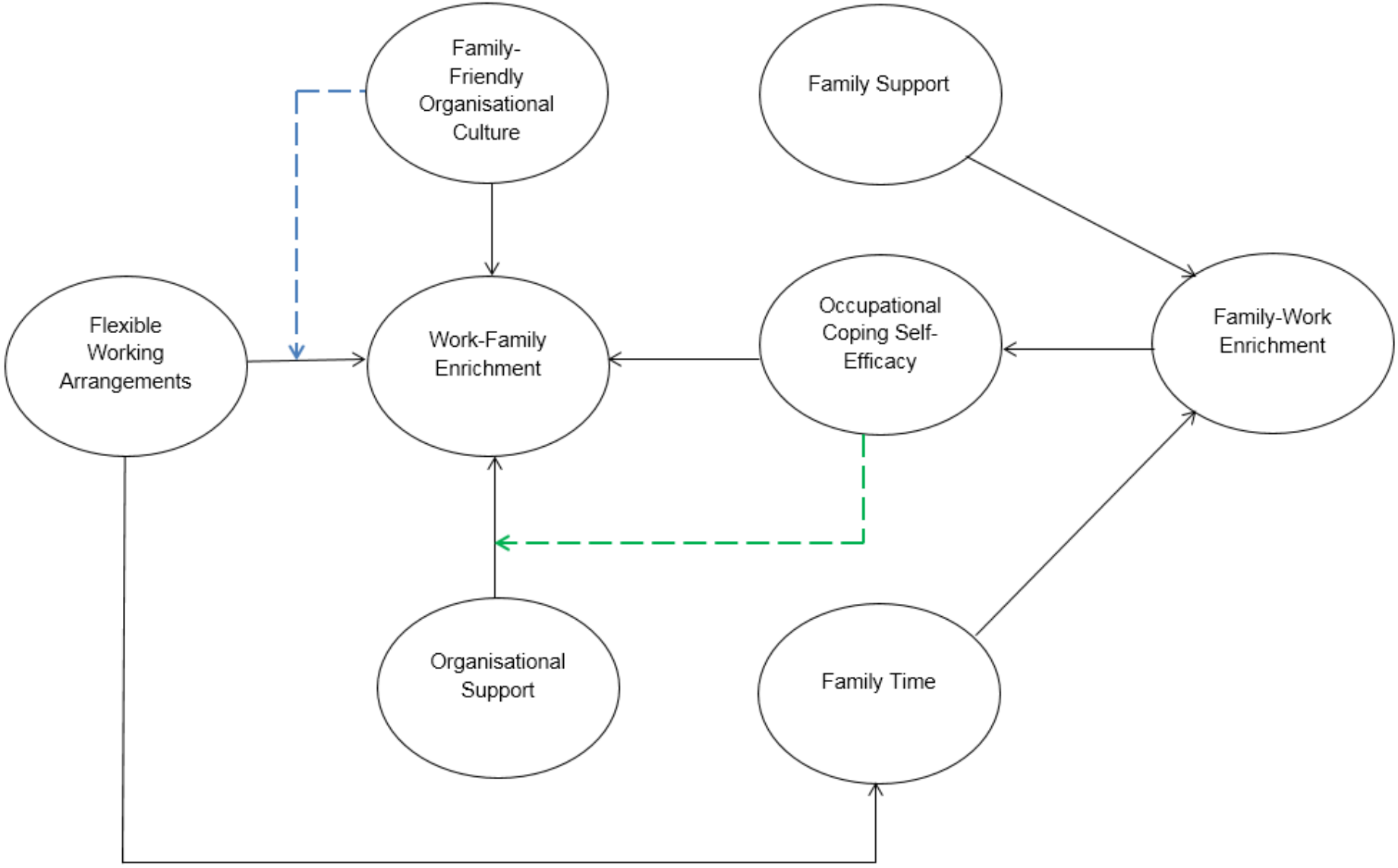

Figure 3. 1 The Enrichment Structural Model

3.4 Research hypotheses

Through theorising, a theoretical position was formulated on the concept of enrichment, specifically work-family and family-work enrichment. It was argued in this study that family and work are not separate domains: experiences in one domain influence experiences and quality of life in the other domain. More specifically, resources generated in one domain have the potential to improve functioning in the other domain. However, there are certain variables that could influence employees' experience of enrichment. For example, it was argued that the variance in employees' experience of work-family or family-work enrichment can be attributed to the availability of certain work and family resources. Additionally, it was also argued that the positive experiences (e.g. moods, skills, values and behaviours) can spill over from the family domain to the work domain. It was argued that employees who experience family-work enrichment are more likely to experience positive emotions and moods. Greater positive affect enhances an employee's beliefs about their abilities (i.e. self-efficacy) which, in turn, spill over into the work domain where it facilitates greater work-family enrichment.

The theoretical position had to be empirically tested to determine its validity. Consequently, research hypotheses were formulated. The research hypotheses specify the relationship(s) between the independent variable(s) and the dependent variable(s) (Mellenbergh, 2008). Thus, the following research hypotheses were formulated to describe the relationships between the variables in the structural model.

Hypothesis 1[3]: Family support has a positive linear relationship with family-work enrichment.

Hypothesis 2: Family time has a positive linear relationship with family-work enrichment.

Hypothesis 3: Flexible working arrangements have a positive linear relationship with work-family enrichment.

[3] Although not stated explicitly in the hypotheses, it is noted that the hypotheses are presented as part of a bigger structural model. The hypotheses could also have reflected this by explicitly stating, "In the Proposed *Enrichment Structural Model,* it is hypothesised that family support has a positive linear relationship with family-work enrichment".

Hypothesis 4: Flexible working arrangements have a positive linear relationship with family time.

Hypothesis 5: Organisational support has a positive linear relationship with work-family enrichment.

Hypothesis 6: Family-friendly organisational culture has a positive linear relationship with work-family enrichment.

Hypothesis 7: Family-friendly organisational culture moderates the relationship between flexible working arrangements and work-family enrichment.

Hypothesis 8: Occupational coping self-efficacy has a positive linear relationship with work-family enrichment.

Hypothesis 9: Family-work enrichment has a positive linear relationship with occupational coping self-efficacy.

Hypothesis 10: Occupational coping self-efficacy moderates the relationship between organisational support and work-family enrichment.

3.5 Research design

The research design serves as a plan of action or framework for the execution or implementation of the research. It acts as a blueprint, as it specifies the exact series of activities to be carried out to ensure the validity of the conclusions derived from the research (Terre Blanche, Durrheim, & Painter, 2006). The research design attempts to control variance as to ensure the unambiguous interpretation of research results for or against the substantive hypotheses.

Two broad types of research designs exist, namely an experimental research design and an *ex post facto* design. An experimental research design allows the researcher to manipulate the independent variable by randomly assigning units of analysis to treatments or a set of conditions. As a result, the researcher can determine whether the dependent variable responds to the manipulation of the independent variable. In contrast, when using an *ex post facto* research design, the researcher uses neither random assignment nor the experimental manipulation of the independent variable.

For the purpose of the present study, an *ex post facto* correlation design was employed. A correlational design refers to a study in which both the independent and

dependent variables are observed across test subjects to determine the extent to which they co-vary. The researcher merely observes a number of variables and calculates the co-variances between the observed variables. A high degree of fit between the observed and the estimated covariance matrices indicate that the psychological processes, as indicated in the structural model, provides an acceptable account for the observed covariance matrix.

3.6 Sampling

A sample refers to a subsection, or some part of a larger population (Zikmund, Babin, Carr, & Griffin, 2013). Before procuring a sample, the researcher must make several decisions. These decisions are highly interrelated and include defining the target population, defining the sampling population, deciding on the sampling technique and determining the sample size.

3.6.1 Defining the target population

The target population refers to the theoretical totality of elements implied by the research initiating question (Kerlinger & Lee, 2000). The target population for this particular study would be female academics employed in higher education institutions across South Africa. Ideally, one would like to include the whole target population in the study. However, this is seldom practically feasible. The alternative would be to investigate only a representative sample from the target population. However, given the convenience sampling approach that was used in this study, the lack of sample representativeness will be noted as a limitation of this study.

3.6.2 Defining the sampling population

The sampling population refers to the population of elements from which the sample is actually selected (Kerlinger & Lee, 2000). The sampling population for this particular study was female academics employed at two higher education institutions in the Western Cape. Research participants were selected for inclusion into the study according to the following criteria: (1) females academics with (2) dependents[4] who are financially and emotionally dependent on the participant (i.e. young children,

[4] A restricted definition of dependents was used in accordance with the Enrichment literature (as discussed in chapter 2). It is acknowledged that the description of “dependents” could have been extended to include elderly parents or any close or extended family member living with the respondent and in need of care. However, for the purposes of this study the definition of dependents (i.e. children who are financial and or emotionally dependent on the respondent) as presented in the Enrichment literature, were utilised.

children of school going age, or children at university either living on campus or at home) who (3) have some sort of support structure (i.e. a spouse or partner).

3.6.3 The sampling method

Zikmund et al. (2013) distinguishes between two types of sampling procedures: probability and non-probability sampling techniques. Probability sampling refers to a sampling technique in which every member of the population has a known, non-zero chance of being selected. Probability sampling techniques include simple random sampling, systematic sampling, stratified sampling, cluster sampling and multi-stage cluster sampling. Non-probability sampling, in turn, refers to a sampling technique in which the probability of selection, for each element in the population, is unknown (Babbie & Mouton, 2001). Judgement sampling, convenience sampling, quota sampling and snowball sampling are non-probability sampling techniques (Zikmund et al., 2013). For the purpose of the current study, convenience sampling was employed. Convenience (or accidental) sampling refers to a sampling procedure where population elements are conveniently available to participate in the research study (Zikmund et al., 2013).

Female academics at different faculties and departments at two universities were invited to participate in the study via an e-mail containing a link to the online questionnaire. An online survey platform was used to forward the e-mails to respondents. Prior to data collection, an invitation list (with all the e-mail addresses) was uploaded to the online platform by a representative from the institution's Information Technology department (after ethics clearance was received by the Research Ethics Committee), thereby ensuring that the contact details of the possible respondents were not shared with the researcher. A total of 695 e-mail invitations were distributed and 129 complete responses were received (thereby delivering a response rate of 18.6%). Yet, only 84 responses were suitable to use as respondents without children and incomplete responses had to be excluded from the study.

3.6.4 Sample characteristics

A total of 84 female academics employed at two higher education institutions were included in the sample. Respondents were distributed across the following faculties in the participating institutions: Economic and Management Sciences (28.6%), Art and Social Sciences (20.2%), Medicine and Health Sciences (15.5%), Science (15.5%), AgriSciences (8.3%), Education (4.8%), Engineering (4.8%) and Law

(2.4%). Participants also had to indicate in which department they work within the respective faculty. The breakdown of respondents per department is indicated in Table 3.1. Furthermore, information on job title, part-time versus full-time employee status and length of service was gathered. Slightly more than a third of the participants were lecturers (39.3%), most were full-time employees (86.9%), and on average have been working at their respective university for 10.5 years (see Tables 3.2 and 3.3)

Table 3. 1

Responses per department

Economic and Management Sciences	
Department	**Number of respondents**
Bureau for Economic Research	1
Business Management	2
Business School	2
Economics	1
Industrial Psychology	3
School of Accounting	9
School of Public Leadership	3
Failed to indicate	3
Arts and Social Sciences	
Department	**Number of respondents**
Afrikaans	1
English	1
General Linguistics	3
Geography	2
Philosophy	2
Political Sciences	1
Social Work	2
Sociology	2
Failed to indicate	3
Medicine and Health Sciences	
Department	**Number of respondents**
Family Medicine	1
Global Health	2
Health and Rehabilitation Sciences	2
Medicine	2
Nursing and Midwifery	2
Paediatrics and Child Health	1

Table 3. 2

Responses per department (continued)

Medicine and Health Sciences	
Department	**Number of respondents**
School of Public Health	1
School of Natural Medicine	1
Science	
Department	**Number of respondents**
Biochemistry	1
Botany and Zoology	2
Chemistry	2
Computer Sciences	1
Mathematical Sciences	2
Microbiology	1
Physics	1
Physiological Sciences	1
Statistics	1
Failed to indicate	1
Agrisciences	
Department	**Number of respondents**
Animal Sciences	1
Conservation Ecology and Entomology	2
Forest and Wood Sciences	1
Genetics	2
Horticulture	1
Viticulture	1
Education	
Department	**Number or respondents**
Education Policy Studies	1
Curriculum Studies	2
Sport Sciences	1
Engineering	
Department	**Number of respondents**
Mechanical and Mechatronic Engineering	1
Civil Engineering	3
Law	
Department	**Number of respondents**
Mercantile Law	2
TOTAL	**84**

Table 3. 3

Job title

Job Title	Frequency	Percent
Junior Lecturer	3	3.6
Lecturer	33	39.3
Senior Lecturer	13	15.5
Associate Professor	13	15.5
Professor	11	13.1
Contract Researcher	3	3.6
Research Assistant	2	2.4
Post-Doctorate	1	1.2
Other	5	6
TOTAL	**84**	**100**

Table 3. 4

Part-time and full-time employees

	Frequency	Percentage
Part-time	7	8.3
Full-time	73	86.9
Not specified	4	0.1
TOTAL	**84**	**100**

Tables 3.4 and 3.5 indicate the age and ethnicity of respondents who participated in the study. The mean age of respondents was 42 years, while the youngest participant was 26 years of age and the eldest 64 years of age. As can be seen in Table 3.5, the majority of respondents were White (73.8%), followed by Coloured (16.7%), African (6%) and Indian (1.2%).

Table 3. 5

Age

	N	Minimum	Maximum	Mean	Std. Deviation
Age	83	26	64	42.22	8.876
Valid N (Listwise)	83				

Information on first and second language, as well as highest qualification is reflected in Tables 3.6, 3.7 and 3.8. More than half of the sample reported Afrikaans to be their first language (54.8%) and English their second language (60.7%). The majority of the sample indicated that their highest qualification was a postgraduate degree, with most having completed a PhD (65.5%) and a Master's degree (25%).

Table 3. 6

Ethnicity

Ethnicity	Frequency	Percent
African	5	6
White	62	73.8
Coloured	14	16.7
Indian	1	1.2
Other	0	0
Missing	2	2.3
TOTAL	**84**	**100**

Table 3. 7

First language

First Language	Frequency	Percent
Afrikaans	46	54.8
English	36	42.9
Xhosa	0	0
Venda	0	0
Zulu	0	0
Ndebele	0	0
South Sotho	0	0
North Sotho	1	1.2
Tsonga	0	0
Tswana	0	0
Swazi	0	0
Other	0	0
TOTAL	**84**	**100**

Table 3. 8

Second language

Second Language	Frequency	Percent
Afrikaans	29	34.5
English	51	60.7
Xhosa	0	0
Venda	0	0
Zulu	1	1.2
Ndebele	0	0
South Sotho	0	0
North Sotho	0	0
Tsonga	0	0
Tswana	0	0
Swazi	0	0
Other	0	0
TOTAL	**84**	**100**

Table 3. 9

Highest qualification

Qualification	Frequency	Percent
Lower than Grade 10 (Std 8)	0	0
Grade 10	0	0
Grade 12 / Matric	1	1.2
Post-matric certificate	0	0
Diploma	0	0
Undergraduate Degree	2	2.4
Post-graduate: Honours	5	6
Post-graduate: Masters	21	25
Post-graduate: PhD	55	65.5
TOTAL	**84**	**100**

Respondents were also asked to indicate their relationship status, how many children they had, the age(s) of their children, as well as where their children lived. As part of the inclusion criteria, only the responses of respondents whose children lived with them were included in the sample.

Table 3.9 shows that the majority of respondents were married (86.9%) with only a small percentage of respondents indicating that they were single (divorced /

separated / widowed)[5] or living together. Only participants with children were invited to complete the survey. A third of the sample (33.3%) reported having only one child, 52.4% indicated that they have two children, 8.3% indicated that they have three children and 6% of participants reported having four children.

Table 3. 10

Relationship status

Relationship Status	Frequency	Percent
Single (divorced / separated / widowed)	8	9.5
Married	73	86.9
Living together	3	3.6
TOTAL	**84**	**100**

Table 3. 11

Number of children

Number of children	Frequency	Percent
1	28	33.3
2	44	52.4
3	7	8.3
4	5	6
5	0	0
6 or more	0	0
Total	**84**	**100**

In addition to the number of children, participants also had to indicate the age of their children. The ages of children were divided into six categories: (1) infant, (2) toddler, (3) pre-school, (4) primary school, (5) adolescent and (6) older than 18 years. Almost thirty percent of participants indicated that their children were of a 'primary school' age (29.3%), with the second largest number of children falling into the category of 'older than 18 years' (28%) (yet, still living with their parents in their home).

[5] The inclusion criteria stipulated that participants should have some sort of support (i.e. a spouse or a partner) to participate in the study. Yet, given the small sample size, participant who indicated that they were divorced / separated / widowed were also included in the sample. These participants had to have some form of home support (i.e. grandparents or domestic worker) or they would not have been able to complete the questions related to family support.

Table 3. 12

Age of children

Age of children	Frequency	Percent
Infant (0 to 12 months)	12	7.6
Toddler (1 to 3 years)	19	12.1
Pre-school (3 to 5 years)	23	14.6
Primary school (6 to 12 years)	46	29.3
Adolescent (13 to 18 years)	13	8.3
Older than 18 years	44	28
Total	**157**	**100**

3.7 Ethical considerations

When conducting research, it is important to reflect upon the potential ethical risks associated with the proposed research. The researcher should strive to protect the dignity, rights, safety and well-being of participants as far as possible: participants should not be exposed to any physical or psychological threats. According to Lee-Treweek and Linkogle (2000) research in the social sciences may involve a range of dangers: the dignity, rights, safety and well-being of participants of the research participants may be compromised to some degree. Ethical decisions involve weighing up a number of factors in the complex social situations in which research is conducted (Piper & Simons, 2005). Before conducting research, the researcher has to evaluate whether the costs incurred by research participants are justifiable in terms of the benefits accrued to society. The following sections provide information on the ethical principles that were upheld throughout the execution of this study.

3.7.1 Informed consent

The research participant has the right to decide whether he or she wishes to participate in the research study. The researcher has to inform the participant of the purpose and consequences of taking part in the study, to enable the participant to make an informed decision as to whether he or she wishes to participate. By signing an informed consent form, the participant gives his or her permission to be interviewed, fill out a questionnaire, or be observed.

In this study, participants were provided with a consent form with information on the purpose and consequences of participating in the study (see Appendix A). Prior to

completing the questionnaire, participants had to indicate their electronic consent by clicking on the “yes” or “no” buttons at the end of the informed consent form.

3.7.2 Protection of confidentiality

Piper and Simons (2005, p. 57) define confidentiality as “a principle that allows people not only to talk in confidence, but also to refuse to allow publication of any material that they think might harm then in any way”. The researcher should take necessary measures to ensure the confidentiality and security of participants’ personal information. This can be done by providing a detailed description as to who will have access to the personal data of participants, the measures used to store the data, and the length of time that the data will be kept in storage, as well as whether it will be destroyed after a specific time period.

Only the researchers involved in the study were allowed to capture and analyse the collected data. The completed questionnaires were kept in a safe and secure location. In the consent form, respondents were informed of the steps taken to protect their confidentiality. Questionnaires were anonymous and respondents did not have to provide any personal information that might lead to their identification.

3.7.3 Ethical risks

Lee-Treweek and Linkogle (2000) identify four key areas of danger in social research, namely physical, emotional, ethical and professional. Physical danger can be interpreted as an immediate physical threat, whilst emotional danger refers to the emotional implications of conducting the research. Emotional danger is particularly prevalent in situations where information is gathered from participants undergoing stressful life events. Ethical dangers refer to research ethics, which is primarily concerned with protection and the welfare of research participants. Compliance with ethical codes of research will protect the researcher and participant from ethical risks.

The current research study was classified as a low risk study. According to the Research Ethics Committee’s document titled Standard Operating Procedure (2012, p. 35), low risk research is defined as follows:

> *Research in which the potential exists for minor emotional discomfort, e.g. the subject matter may have a low degree of personal, social or political sensitivity that could cause embarrassment to participants. The risk can be easily mitigated by a sensitive approach by the investigator.*

The study complied with the guidelines and ethical standards as stipulated in this document in order to eliminate potential dangers that might have occurred during the process of conducting the research. Participants were only requested to respond to questions relating to their experiences of enrichment. Ethics approval and institutional permission were obtained from the Research Ethics Committees at both the higher education institutions that participated in the research (see Appendix B).

3.8 Data analysis

The following sections will explore the different data analysis techniques that were utilised in this study. Prior to testing the structural model with the Partial Least Squares (PLS) modelling technique, item analysis was conducted on each measurement instrument utilised in this study in an attempt to validate the psychometric properties of the instruments. After conducting item analysis, the Enrichment inner and outer model were tested using the PLS approach.

3.8.1 Item analysis

Item analysis attempts to identify items that have a negative effect on the reliability and validity of the scales used to measure the latent variables. Item analysis, or internal validation, allows the researcher to flag possible poor items from a particular scale to maximise reliability. By performing item analyses, the researcher ensures that the items of the various instruments reflect participants' true standing on the latent variables. Item analysis was therefore performed for every scale and subscale used to measure the various latent variables. Item analysis was performed as part of the Partial Least Squares (PLS) analysis, utilised in this study. The following item statistics were assessed to evaluate the quality of items contained an in particular scale / subscale: Cronbach's alpha if item is deleted, the inter-item correlations and the squared multiple correlations. To further investigate whether poor items should be deleted from the item data pool, item analysis could be supplemented with an exploratory factor analysis (EFA) and/or confirmatory factor analysis (CFA). Once poor items were identified and removed from the original data set, the PLS model was fitted to the revised data.

3.8.2 Confirmatory factor analysis (CFA)

Confirmatory factor analysis attempts to determine how well the measured variables represent the number of constructs. Confirmatory factor analysis is used for four purposes, namely the psychometric evaluation of measures, construct validation,

testing method effects and testing measurement invariance (Harrington, 2009). This study could have employed confirmatory factor analysis for the purposes of construct validation. Confirmatory factor analysis via LISREL, tests the internal structure of the instruments used to measure the various constructs (Tabachnick & Fidell, 2001; Berenson, Levine, & Goldstein, 1983).

However, due to the limited sample size and the use of instruments with a large number of items, it was not methodologically feasible to conduct separate CFA's on all of the instruments. In addition, responses on two of the instruments, i.e. Family Time and Flexible Working Arrangements, were dichotomous and it would not have been appropriate to conduct CFA on these instruments. Therefore, no CFA results on the separate measurement instruments are reported.

3.8.3 Missing values

Most researchers, regardless of their data-collection method, face the problem of missing values. There exist a number of methods of dealing with missing values (Babbie & Mouton, 2001). The two most common strategies for dealing with missing data are deletion and estimation (Anderson, Basilevsky, & Hum, 2013). If there are relatively few cases with missing data, the researcher may exclude it from the sample and then calculating estimates from the complete sample (Babbie & Mouton, 2001; Anderson et al., 2013). Estimation refers to estimating the missing values in some way and then proceeding with the statistical analysis as if the dataset had been complete (Anderson et al., 2013).

In the present study, missing data was treated by multiple imputation procedure. With this method, a respondent's missing data is replaced by a value that is predicted based on other, known characteristics of the respondent (Donders, van der Heijden, Stijnen, & Moons, 2006). With a sample size of 84 and a questionnaire consisting of 116 items, only 19 values were missing out of a total of 9912 possible item responses. Consequently, only 0.19% of the data points were missing, and were replaced through the imputation procedure.

3.8.4 Structural equation modelling

The relationships between the variables were analysed via structural equation modelling (SEM). SEM allows the researcher to empirically test their theoretical position. Structural equation modelling, or path analysis, is based on regression

analysis and can provide a useful graphic picture of the relationships among several variables. Path analysis indicates the impact of the independent variable(s) on the dependent variable(s) as well as the strength of the relationships between pairs of variables.

Two approaches to SEM exist, namely covariance-based SEM (CB-SEM) and variance based SEM, also known as the Partial Least Squares (PLS-SEM) method (Ravand & Baghaei, 2016). The covariance-based approach to SEM develops a theoretical covariance matrix based on certain structural equations (Hair, Ringle, & Sarstedt, 2011). During the parameter estimation process, this approach aims to minimise the difference between the theoretical covariance matrix and the estimated covariance matrix (Haenlein & Kaplan, 2004). This is done by using the maximum likelihood estimation method and attempts to “reproduce the covariance matrix of the observed measures” (Ravand & Baghaei, 2016; Haenlein & Kaplan, 2004). However, covariance based SEM analyses require the data to be normally distributed and can only be conducted on relatively large sample sizes (Hair et al., 2011).

Variance based SEM or PLS-SEM uses an ordinary least square estimation method to maximise the explained variance of the dependent variable explained by the independent variables (Ravand & Baghaei, 2016; Haenlein & Kaplan, 2004). PLS-SEM imposes fewer constraints on the data and can be used where the assumptions of multivariate normality and sample size are not met (Matels-Aparicio, 2011). Similar to CB-SEM, PLS-SEM follows a two-step process to evaluate model fit: first the measurement model, or the outer model as it is referred to in the PLS-context is examined, and then the structural model or the inner model (in the PLS-context) is examined (Hair et al., 2011).

3.8.4.1 Outer model evaluation

The measurement or outer model measures the relationship between each latent variable and its associated indicator variables (Mateos-Aparicio, 2011). PLS-SEM can handle both formative and reflective measurement models. In a reflective measurement model, “the construct is the cause of the indicators” (Ravand & Baghaei, 2016). In other words, changes in the construct are reflected in changes in the indicator variables (Hair et al., 2011). Alternatively, in a formative measurement model “the indicators cause or form the construct” (Ravand & Baghaei, 2016, p. 4). Thus, changes in the indicators regulate changes in the construct (Hair et al., 2011).

When evaluating the outer model, the reliability and validity of the construct measures in the outer model need to be evaluated. The first step in evaluating the reliability and validity would be to evaluate the measures' internal consistency reliability. Internal consistency reliability can be assessed by either considering Cronbach's alpha or composite reliability (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014). Cronbach's alpha refers to the average correlation between the indicators of a construct. A Cronbach's alpha of .70 or higher is generally viewed as sufficient evidence in support of the internal consistency (Ravand & Baghaei, 2016). However, Hair et al. (2014) argue that internal consistency can be better assessed by evaluating the composite reliability of a measure. Both Cronbach's alpha and composite reliability are sensitive to the number of items in the scale, but Cronbach's alpha tends to underestimate internal consistency reliability. According to Ravand and Baghaei (2016), a composite reliability of .70 or higher indicates good internal consistency (Ravand & Baghaei, 2016).

After assessing reliability, the validity of each construct in the outer model was evaluated. When evaluating validity, the convergent and discriminant validity needs to be assessed. Convergent validity measures the amount of variance the indicators of a construct share. Proof of convergent validity is obtained by factor loadings of .70 or higher and average variance extracted (AVE) of .50 or higher. An AVE of .50 or larger indicates that construct explains more than half of the variance of its indicators (Ravand & Baghaei, 2016; Hair et al., 2014). Discriminant validity gives an indication of the extent to which a construct is distinct from other constructs. The cross-loadings of the indicator variables or Fornell-Larcker criterion can be used to assess discriminant validity. When examining the cross-loadings of the indicator variables, the loadings of each indicator on its construct should be higher than the cross-loadings on other constructs (Hair et al., 2014). The Fornell-Larcker criterion compares the AVE of each construct with the squared correlations of each construct with other constructs. An AVE larger than its highest correlation with any other construct is indicative of discriminant validity (Ravand & Baghaei, 2016).

3.8.4.2 Inner model evaluation

After the reliability and validity of the outer model have been established, the relationships or paths between the constructs within the inner model are evaluated. R^2 measures and the level and significance of the path coefficients are used to

evaluate the quality of the inner model (Hair et al., 2011). The quality of a model is informed by its ability to predict the endogenous variables. The coefficient of determination (R^2) is evaluated to assess the model's predictive accuracy (Hair et al., 2014). The R^2 values reflect the amount of variance in the endogenous latent variables explained by the exogenous latent variables (Ravand & Baghaei, 2016). R^2 values can range from 0 to 1, and R^2 values of .75, .50 and .25 indicate substantial, moderate, or weak levels of predictive accuracy, respectively (Hair et al., 2014).

In addition to coefficient of determination, the individual path coefficients of the model have to be examined. Estimates are provided for the path coefficients once the PLS model was run. These estimates represent the hypothesised paths between constructs and are evaluated in terms of their magnitude and significance. Estimates range from –1 to +1: coefficients closer to +1 represent strong positive relationships and coefficients closer to –1 represent strong negative relationships (Hair et al., 2014). The significance of the estimates is tested using a bootstrapping procedure. Significant paths with signs differing from the hypothesised direction do not support the proposed hypothesised relationship, whereas significant paths showing the hypothesised direction support the hypothesised relationship (Hair et al., 2011).

3.9 Measurement instruments

To empirically test whether the structural model provides a valid account for the variance in female employees' experience of work-family and family-work enrichment, the antecedents of work-family and family-work enrichment, and the spillover of positive experiences from family to work, measures of the latent variables are required. The independent and dependent latent variables were operationalized by using measures from previous research studies or developing new measures, where necessary.

3.9.1 Work-family and family-work enrichment

The MACE Work-Family Enrichment Instrument was used to measure WFE and FWE. The MACE Work-Family Enrichment Instrument was constructed by De Klerk, Nel, Hill, and Koekemoer (2013) in an attempt to measure the positive work-family interface within a South African context. The instrument is based on the 18-item Work-Family Enrichment Scale (WFES) of Carlson, Kacmar, Wayne, and Grzywacz (2006), as well as Greenhaus and Powell's theoretical model of work-family enrichment. The South African version of the questionnaire includes additional

resources that are not included in Carlson et al.'s (2006) measure, and measures both work-family and family-work enrichment.

The MACE Work-Family Enrichment Instrument is comprised of 34 items and measures the following dimensions of both WFE and FEW: perspectives, affect, time management and social capital. The WFE dimensions consists of six work-family perspective items (e.g. "My family life is improved by the viewpoints I have learned through my work"), three work-family affect items (e.g. "My family life is improved by my work that makes me feel happy"), six work-family time management items (e.g. "My family life is improved by using my time effectively at work") and three work-family social capital items (e.g. "My family life is improved by having good relationships at work"). FWE was measured by five family-work perspective items (e.g. "My work is improved by my family showing me different viewpoints"), five family-work affect items (e.g. My work is improved by the self-worth I have in my family life"), three family-work time management items (e.g. "My work is improved by maintaining my time schedule in my family life") and three family-work social capital items (e.g. "My work is improved by the support I receive from my family"). Research subjects had to indicate their agreement or disagreement with items on a 5-point Likert scale. Scale points ranged from 0 (strongly disagree) to 4 (strongly agree) (Marais et al., 2014).

Validation studies of the MACE Work-Family Enrichment Instrument found reliable Cronbach alpha coefficients for each subscale of WFE and FWE: work-family perspectives (.91), work-family affect (.84), work-family time management (.90), work-family social capital (.80), family-work perspectives (.89), family-work affect (.89), family-work time management (.83) and family-work social capital (.78) (De Klerk et al., 2013).

3.9.1.1 Descriptive statistics and item analysis

Item analysis was conducted on the four subscales of Work-Family Enrichment and Family-Work Enrichment, respectively. The four subscales were Perspectives, Affect, Time Management and Social Capital. The descriptive statistics and item analysis for each subscale are presented below in Tables 3.12 to 3.21.

Table 3. 13

The means, standard deviation and reliability statistics for the Work-Family Enrichment Scale

Work-Family Enrichment subscales	**Number of Items**	**M**	**SD**	**α**
Perspectives	6	16.00	4.82	.96
Affect	3	7.18	3.24	.90
Time Management	6	14.74	5.22	.92
Social Capital	3	8.50	2.55	.87

All four of the Work-Family Enrichment subscales obtained high Cronbach alpha scores with values ranging from .87 to .96. Good internal consistency is achieved when a Cronbach alpha value exceeds the critical cut-off score of .70 (Nunally & Bernstein, 1994). Thus, all the Work-Family Enrichment subscales achieved high internal consistency.

The item statistics of the four subscales are displayed in Tables 3.13 to 3.16. All of the subscales' item total correlations and squared multiple correlations fell within a similar range of each other. The only items with item total correlations lower than the rest of the items in that particular scale, were items 14 (.64) and 15 (.53) of the Time Management subscale. The item total correlations of the rest of the items of the Time Management ranged between .91 and .83. Similarly, the squared multiple correlations of items 14 (.47) and 15 (.30) were also lower than the squared multiple correlations of the rest of the items in this subscale (.78 to .91). Should item 14 have been removed from the item pool it would not have resulted in an increase in the Time management subscale Cronbach alpha. However, the results revealed that the deletion of item 15 would indeed lead to an increase of .02 in the Cronbach alpha. Nevertheless, based on this relatively small increase, it was decided not to delete the item from the Time management subscale item pool. In conclusion, all the items of the Work-Family scale were retained for further analysis.

Table 3. 14

Item statistics for Work-Family Enrichment Perspectives

Variable	Mean if deleted	Var. if deleted	Item Total correlation	Squared Multiple R	Alpha if deleted
Item 1	13.58	16.39	.75	.60	.96
Item 2	13.25	16.09	.85	.78	.95
Item 3	13.19	16.08	.90	.82	.94
Item 4	13.44	15.97	.87	.76	.95
Item 5	13.25	16.06	.89	.83	.94
Item 6	13.30	15.89	.91	.84	.94

Table 3. 15

Item statistics for Work-Family Enrichment Affect

Variable	Mean if deleted	Var. if deleted	Item Total correlation	Squared Multiple R	Alpha if deleted
Item 7	4.89	4.60	.84	.72	.84
Item 8	4.63	5.01	.83	.70	.85
Item 9	4.84	4.91	.77	.59	.90

Table 3. 16

Item statistics for Work-Family Enrichment Time Management

Variable	Mean if deleted	Var. if deleted	Item Total correlation	Squared Multiple R	Alpha if deleted
Item 10	12.31	18.11	.83	.82	.90
Item 11	12.26	17.62	.91	.91	.89
Item 12	12.21	17.69	.90	.86	.89
Item 13	12.35	18.53	.87	.78	.90
Item 14	11.98	20.95	.64	.47	.92
Item 15	12.58	21.02	.53	.30	.94

Table 3. 17

Item statistics for Work-Family Enrichment Social Capital

Variable	Mean if deleted	Var. if deleted	Item Total correlation	Squared Multiple R	Alpha if deleted
Item 16	5.69	3.39	.71	.55	.85
Item 17	5.76	2.61	.74	.59	.85
Item 18	5.55	3.10	.84	.71	.74

The results further indicated high Cronbach alpha values for each of the four subscales of Family-Work Enrichment (Table 3.17). The alpha values ranged from .83 to .91 indicating high internal consistency, as these values far exceeded the critical cut-off value of .70 for good internal consistency.

Table 3. 18

The means, standard deviation and reliability statistics for the Family-Work Enrichment Scale

Family-Work Enrichment subscales	**Number of Items**	**M**	**SD**	**α**
Perspectives	5	15.38	3.21	.90
Affect	5	15.23	3.84	.90
Time Management	3	7.89	2.70	.91
Social Capital	3	9.90	1.99	.83

Tables 3.18 to 3.21 display the results of the item analysis conducted on the four subscales of Family-Work Enrichment. The item total correlations of the items across the four subscales more or less fell within the same ranges of each other. The only items that seemed somewhat out of sync with the rest, were items 10 (Affect subscale) and 14 (Social Capital subscale). With an item total correlation of .66, item 10's item total correlation was somewhat lower than the item total correlations of the rest of the items of this subscale (.82 to .75). Similarly, item 14's item total correlation (.58) was also lower than the other two items of the Social Capital subscale (.73 and .79 respectively). However, the results revealed that the deletion of item 10 would not lead to a significant increase in the Cronbach alpha for the Affect subscale. However, the deletion of item 14 would result in a .06 increase in the Cronbach alpha for the Social Capital subscale. However, as this subscale already had obtained a fairly high Cronbach's alpha, and considering the fact that it only contained three items, it was decided to retain all of the items in this subscale for the PLS analysis.

Table 3. 19

Item statistics for Family-Work Enrichment Perspectives

Variable	Mean if deleted	Var. if deleted	Item Total correlation	Squared Multiple R	Alpha if deleted
Item 1	12.53	6.17	.73	.65	.89
Item 2	12.45	6.47	.77	.67	.88
Item 3	12.08	7.07	.79	.69	.88
Item 4	12.20	6.84	.80	.74	.88
Item 5	12.25	6.74	.76	.66	.88
Item 6	12.53	6.17	.73	.65	.89

Table 3. 20

Item statistics for Family-Work Enrichment Affect

Variable	Mean if deleted	Var. if deleted	Item Total correlation	Squared Multiple R	Alpha if deleted
Item 6	12.35	9.05	.78	.70	.87
Item 7	12.14	9.02	.78	.73	.88
Item 8	12.26	9.02	.82	.70	.87
Item 9	12.11	10.07	.75	.69	.88
Item 10	12.04	10.54	.66	.60	.90

Table 3. 21

Item statistics for Family-Work Enrichment Time Management

Variable	Mean if deleted	Var. if deleted	Item Total correlation	Squared Multiple R	Alpha if deleted
Item 11	5.19	3.55	.75	.59	.92
Item 12	5.24	3.46	.81	.72	.87
Item 13	5.35	3.08	.88	.79	.81

Table 3. 22

Item statistics for Family-Work Enrichment Social Capital

Variable	Mean if deleted	Var. if deleted	Item Total correlation	Squared Multiple R	Alpha if deleted
Item 14	6.55	1.92	.58	.34	.89
Item 15	6.58	1.94	.79	.68	.69
Item 16	6.68	1.79	.73	.65	.72

3.9.2 Family support

Family support was assessed with the Family Support Inventory for Workers (FSIW) as developed by King et al. (1995). The instrument comprise of 44 items and measures both instrumental and emotional support from the family. A 5-point Likert scale, ranging from strongly agree (5 points) to strongly disagree (1 point), was used to capture responses to the forty-four item. The instrument contained a number of negative items, for example: “My family members burden me with things that they should be able to handle on their own”. Instrumental support was measured by items such as: “When I’m having a difficult week at my job, my family members try to do more of the work around the house.” An example item used to measure emotional support included: “When something at work is bothering me, members of my family show that they understand how I’m feeling” (Wayne et al., 2006, p. 452).

For both emotional and instrumental support, King et al. (1995) reported high alpha coefficient values (.97 for emotional support and .93 for instrumental support), which indicated high internal consistency for the respective scales. The correlation between the two dimensions was shown to be .59 (King et al.,1995). Furthermore, King et al. (1995) indicated that the FSIW scales appeared to be relatively free from the influence of social desirability bias.

3.9.2.1 Descriptive statistics and item analysis

Item analysis was conducted on the two subscales of Family Support, that is Emotional Support and Instrumental Support. Tables 3.22 to 3.24 show the descriptive statistics and item analysis results for each subscale.

Table 3. 23

The means, standard deviation and reliability statistics for the Family Support Scale

Family Support subscales	Number of Items	M	SD	α
Emotional Support	29	113.51	15.90	.96
Instrumental Support	15	51.80	11.70	.93

As indicated in Table 3.22, the Emotional Support subscale obtained a very high Cronbach alpha score (.96), indicating very high internal consistency. The item statistics for the 29 items of the Emotional Support subscale are presented in Table 3.23. The lowest item total correlation was .48 (item 29) and the highest total correlation was .79 (item 14). In a similar fashion, the squared multiple correlations

ranged from .53 to .80. All of the items of the subscale were retained as no poor items were identified, and as the results indicated that the deletion of none of the items would have resulted in an increase in the subscale's reliability.

Table 3. 24

Item statistics for Emotional Support

Variable	Mean if deleted	Var. if deleted	Item Total correlation	Squared Multiple R	Alpha if deleted
Item 1	109.08	238.52	.58	.56	.96
Item 3	109.84	230.01	.69	.68	.95
Item 4	109.53	234.40	.68	.68	.95
Item 6	109.71	231.48	.67	.71	.95
Item 7	109.78	227.62	.71	.74	.95
Item 9	109.54	232.17	.56	.65	.96
Item 11	109.59	231.42	.72	.75	.95
Item 13	109.65	233.13	.64	.68	.95
Item 14	109.60	231.27	.79	.80	.95
Item 15	109.85	228.98	.68	.62	.95
Item 16	109.65	233.90	.69	.70	.95
Item 18	109.88	228.31	.77	.74	.95
Item 19	109.89	233.72	.53	.54	.96
Item 20	109.61	238.46	.55	.61	.96
Item 22	109.69	232.19	.68	.78	.95
Item 23	109.79	231.17	.63	.71	.96
Item 25	109.31	234.59	.49	.58	.96
Item 26	109.09	237.38	.72	.67	.95
Item 27	109.46	234.32	.71	.79	.95
Item 29	109.88	235.13	.48	.57	.96
Item 30	109.35	234.70	.66	.75	.95
Item 32	109.53	235.00	.68	.71	.95
Item 34	109.48	233.40	.69	.70	.95
Item 35	109.26	238.04	.51	.53	.96
Item 37	109.69	236.21	.55	.61	.96
Item 38	109.76	227.73	.73	.66	.95
Item 40	109.59	232.04	.71	.66	.95
Item 41	109.61	233.29	.73	.79	.95
Item 44	109.70	233.09	.65	.72	.95

As is evident from Table 3.24, the Instrumental Support subscale of the Family Support scale obtained a Cronbach alpha of .93. A value of .93 far exceeds the

critical cut-off value of .70 for good internal consistency, thereby demonstrating very high internal consistency.

Table 3. 25

Item statistics for Instrumental Support

Variable	Mean if deleted	Var. if deleted	Item Total correlation	Squared Multiple R	Alpha if deleted
Item 2	48.53	126.10	.35	.33	.93
Item 5	48.04	119.09	.72	.72	.93
Item 8	48.75	117.14	.60	.51	.93
Item 10	48.60	118.42	.59	.45	.93
Item 12	48.18	117.89	.70	.69	.93
Item 17	48.18	117.24	.76	.69	.92
Item 21	48.90	114.79	.79	.74	.92
Item 24	48.18	118.69	.60	.60	.93
Item 28	48.06	115.23	.80	.71	.92
Item 31	48.38	119.23	.64	.50	.93
Item 33	48.14	117.94	.70	.59	.93
Item 36	48.13	117.11	.84	.77	.92
Item 39	48.13	115.63	.73	.64	.93
Item 42	48.56	122.05	.51	.44	.93
Item 43	48.48	117.52	.70	.59	.93

The item total correlations (with the exception of one item) ranged from .51 to .84. With a value of .35, the item total correlation of item 2 seemed somewhat out of sync with the rest of the items. Item 2's squared multiple correlation also fell outside the range of the squared multiple correlations of the rest of the items (.44 to .77). However, the removal of item 2 would not have resulted in a higher Cronbach alpha. Consequently, the item was not deleted and all the items for the Instrumental Support subscale were retained for further analysis.

3.9.3 Family time

No existing instrument could be found to measure 'family time' as it was defined for the purpose of this study. Therefore, an instrument had to be developed to measure 'family time'. Lesnard (2008) and Nock and Kingston (1988) used the time diaries of working couples to examine family time. These time diaries contained a detailed account of participants' daily activities, which included time spent with each other as well as the time spent with children. Consequently, Lesnard (2008) identified two

types of family time: time partners spend together (i.e. conjugal time) and time parents spend with their children (i.e. parental time). Unfortunately, the use of time diaries was not feasible for the purpose of this study. Yet, elements of Lesnard's study were used to construct a measure of family time.

Participants were asked to indicate how often they spent time with their family per week. Family was defined as 'spouse / partner and / or children' and family time was defined as 'quality time spent with family'. Participants had to rate how frequently they engaged in four types of family time activities, namely (1) talking to, or playing with spouse (partner) and / or children, (2) leisure activities (such as watching a movie with your children), (3) social activities (such as talking to or playing with family) and (4) eating meals together with your family. Response options for each activity ranged from 'Once a week' (1 point) to 'Seven times a week' (7 points).

In addition to rating how often they engaged in family time per week, participants also had to indicate the extent to which they felt refreshed or rejuvenated after a family time session. The four types of family time activities were once again listed and respondents had to rate how refreshed / rejuvenated they felt after said session, by using a 5-point scale with response options ranging from 'Not at all' to 'Completely'. A total score for family time was calculated by multiplying how often a participant spent time with their family per week with how refreshed or rejuvenated they felt after spending time with their family. This was computed for each type of family time (i.e. talking to, or playing with spouse / children, leisure activities, social activities and eating meals together with family), where after an overall score was summed over all the types of family time. Given the response options and coding of the "family time" measure, it was not deemed applicable to conduct an item analysis on the data derived for the "family time" construct in this study.

3.9.4 Flexible working arrangements

As indicated in chapter two, two types of flexible working arrangements exist, namely temporal flexibility (i.e. flexi schedules and location of work) and operational flexibility (i.e. job autonomy). However, for the purpose of the current study, only temporal flexibility was assessed.

No formal existing instrument could be found to measure temporal flexibility. However, in an article *Family-Supportive Work Environments: The Role of*

Organisational Perceptions, Allen (2001) used a checklist of family-friendly benefits to measure the availability and use of flexible working arrangements and dependent care support. Participants were given a list of work-family related benefits and asked to place a checkmark next to the benefits provided by their organisation, and another checkmark next to the benefits they were currently using, or had used in the past. Additionally, a benefit availability score and a benefit usage score were computed for each category of work-family benefits.

In the present study a similar family-friendly benefits checklist was constructed to measure the availability and use of flexible working arrangements. Participants had to indicate the type of flexible working arrangement(s) available to them in their department / work unit, as well as the frequency to which such arrangements was used on a weekly basis. The list of benefits provided to participants included flexitime, a compressed workweek, telecommuting and part-time work. Responses to the availability of each benefit were measured using a dichotomous response scale ('No' = 0 and 'Yes' = 1). The frequency to which each arrangement was used constituted benefit usage and was rated on a five-point rating scale ranging from 'Never' to 'On an everyday basis'. A total score for temporal flexibility was calculated by multiplying a participant's benefit availability score with their benefit usage score for that particular category, and then summing the overall score over all the benefits. Similar to the "family time" measure, the response options and coding of the "flexible work arrangements" measure did not allow for an item analysis to be conducted on the data derived for this construct in this study.

3.9.5 Organisational support

The supervisor and co-worker support subscales of Dolcos and Daley's (2009) Work-family Conflict Scale were used to measure organisational support. The constructs were rated on a 4-point Likert scale, ranging from 1 = strongly agree to 4 = strongly disagree. Items were reversely scored so that higher scores represent higher levels of workplace support. "My supervisor accommodates me when I have family or personal business to take care of" is an example of an item used to measure supervisor support (Dolcos & Daley, 2009, p. 298). Dolcos and Daley (2009) report an alpha coefficient of .89 for the supervisor support subscale and an alpha coefficient of .75 for the co-worker support subscale. Co-worker support was

assessed by 3 items. An example item is: “I have the support from co-workers that helps me to manage my work and personal or family life.”

3.9.5.1 Descriptive statistics and item analysis

The Organisational Support scale comprised of two subscales, Supervisor Support and Co-Worker Support. The descriptive statistics for the Supervisor Support and Co-worker Support subscales are presented in Table 3.25. The descriptive statistics results revealed high internal consistency for both subscales. Cronbach alpha values of .92 and .94 were obtained for the Supervisor Support and Co-worker Support subscales, respectively.

Table 3. 26

The means, standard deviation and reliability statistics for the Organisational Support Scale

Organisational Support subscales	**Number of Items**	**M**	**SD**	**α**
Supervisor Support	5	18.96	4.75	.92
Co-worker Support	3	11.03	3.13	.94

The item total correlations of the 5 items of the Supervisor Support subscale ranged from .71 to .83. Item 1 obtained the lowest squared multiple correlation value (.59) in comparison to the subscale’s other items that ranged between .70 and .85. However, if item 1 were to be deleted from the subscale, the Cronbach alpha would not increase. Consequently, none of the items were removed from the Supervisor Support subscale.

Table 3. 27

Item statistics for Supervisor Support

Variable	**Mean if deleted**	**Var. if deleted**	**Item Total correlation**	**Squared Multiple R**	**Alpha if deleted**
Item 1	15.35	14.13	.71	.59	.92
Item 2	14.65	15.80	.77	.70	.91
Item 3	15.05	14.80	.85	.85	.89
Item 4	15.31	13.79	.83	.79	.89
Item 5	15.49	14.25	.83	.70	.89

The item analysis results for the Co-worker Support subscale are presented in table 3.27 below. The item total correlations ranged from .83 to .93 with squared multiple

correlations ranging from .72 to .87. If deleted, none of the items in the subscale would have resulted in an increase in the subscale's reliability. Therefore, as none of the items were identified as poor items, all the items of the Co-worker Support subscale were retained.

Table 3. 28

Item statistics for Co-Worker Support

Variable	Mean if deleted	Var. if deleted	Item Total correlation	Squared Multiple R	Alpha if deleted
Item 6	7.34	4.50	.83	.72	.94
Item 7	7.26	4.24	.93	.87	.86
Item 8	7.45	4.52	.86	.80	.92

3.9.6 Family-friendly organisational culture

Family-friendly organisational culture was measured with the four items of the family-friendly culture subscale of the Work-family Conflict Scale by Dolcos and Daley (2009). An example item is: "At my place of employment, employees have to choose between advancing their jobs and devoting attention to their family and personal lives". In a study by Dolcos and Daley (2009), the family-friendly culture subscale obtained an alpha coefficient of .71.

3.9.6.1 Descriptive statistics and item analysis

The descriptive statistics and item analysis of the Family-Friendly Organisational Culture scale is presented below (Tables 3.28 and 3.29). The scale consisted of four items of which one of the items (item 3) was a reverse-key item.

Table 3. 29

The means, standard deviation and reliability statistics for the Family-Friendly Organisational Culture Scale

Family-Friendly Organisational Culture	Number of Items	M	SD	α
Family-Friendly Organisational Culture	4	12.68	2.94	.66

The scale attained a Cronbach alpha value of .66, which was below the critical cut-off value (.70) for good internal consistency. The inspection of the item statistics revealed a somewhat lower item total correlation (.34) and squared multiple

correlation (.17) for item 3. The item total values for the rest of the items ranged between .45 and .52; while the squared multiple correlations ranged between .22 and .33. Yet, if item 3 would be deleted it would not have resulted in an increase in the Cronbach alpha value. Therefore, it was decided to retain item 3 in the item pool, and report the lower internal consistency of this scale as a limitation of this study.

Table 3. 30

Item statistics for Family-Friendly Organisational Culture

Variable	Mean if deleted	Var. if deleted	Item Total correlation	Squared Multiple R	Alpha if deleted
Item 1	9.40	5.19	.52	.33	.54
Item 2	9.49	5.55	.46	.32	.58
Item 3	9.06	5.56	.34	.17	.66
Item 4	10.08	5.12	.45	.22	.58

3.9.7 Occupational coping self-efficacy

Items from the Occupational Coping Self-Efficacy Scale for Nurses (OCSE-N) (Pisanti et al., 2008) were used to measure occupational coping self-efficacy among female academics. The OCSE-N consists of eleven statements describing stressful occupational situations. The items were adapted to reflect difficulties associated with the academic environment. Items (sample items listed here) requested academics to rate how confident they feel they can easily cope with: "…relational difficulties with your supervisors", "…with difficulties in supervising student research projects", "…difficulties in publishing research", and "…difficulties in segmenting time into research and teaching responsibilities". A five-point Likert scale was used on which the participant had to indicate the extent to which they felt they were able to cope with these situations: a 1 on the scale represented 'not at all easy to cope with', whilst a 5 indicated 'extremely easy to cope with' (Pisanti et al., 2015). Furthermore, scale items were divided into two subscales, namely Coping Self-Efficacy to cope with occupational burdens (e.g. "Please rate how confident you feel you can easily cope with difficulties in doing a lot of tasks at the same time") and Coping Self-Efficacy to cope with relational burdens (e.g. "Please rate how confident you feel you can easily cope with relational difficulties with colleagues"). Pisanti et al. (2008) reported acceptable Cronbach alpha values for both subscales: the ability of nurses

to cope with occupational burdens obtained a Cronbach alpha of .77, whilst the ability of nurses to manage relational difficulties had a reliability coefficient of .79.

3.9.7.1 Descriptive statistics and item analysis

As seen in Table 3.30, the Occupational Coping Self-Efficacy scale obtained an acceptable Cronbach alpha value of .79. As this value exceeded the critical cut-off score of .70, it can be concluded that the scale demonstrated good internal consistency.

Table 3. 31

The means, standard deviation and reliability statistics for the Occupational Coping Self-Efficacy Scale

Occupational Coping Self-Efficacy Support	Number of Items	M	SD	α
Occupational Coping Self-Efficacy	11	29.95	7.03	.79

The results of the item analysis are presented in Table 3.31. The scale consisted of 11 items with item total correlations ranging from .30 to .64. Item 3 had the lowest squared multiple correlation and item 10 had the highest squared multiple correlation. As the removal of none of the items would have resulted in a higher Cronbach alpha value, all 11 items of the Occupational Coping Self-Efficacy scale were retained for further analysis.

Table 3. 32

Item statistics for Occupational Coping Self-Efficacy

Variable	Mean if deleted	Var. if deleted	Item Total correlation	Squared Multiple R	Alpha if deleted
Item 1	26.54	43.47	.43	.38	.78
Item 2	27.18	40.74	.38	.42	.78
Item 3	27.56	43.12	.30	.31	.79
Item 4	26.96	43.21	.34	.32	.79
Item 5	26.41	39.49	.63	.47	.76
Item 6	27.54	38.55	.64	.59	.75
Item 7	27.24	38.26	.59	.57	.76
Item 8	27.5	40.35	.47	.46	.77
Item 9	26.78	41.22	.50	.48	.77
Item 10	27.76	41.83	.35	.67	.79
Item 11	28.04	42.84	.35	.65	.79

3.10 Summary

In conclusion, this chapter explored the methodological process that was used to conduct research in this study. The rationale underlying the methodological decisions was explained by providing an in depth description of the research design, the sampling design, the measurement instruments and the statistical analysis techniques that were utilised in this study. The research results will be presented in the next chapter.

CHAPTER 4: RESEARCH RESULTS

4.1 Introduction

The Partial Least Squares (PLS) results of the measurement and structural model will be presented in this chapter. In contrast to the previous chapter which focused on the validation results of the measurement instruments, this chapter will explore the results of the composite measurement (outer) and structural (inner) model.

4.2 PLS results: Validating the measurement (outer) model

4.2.1 Alpha coefficient, composite reliability and AVE values

Table 4.1 provides a summary of the alpha coefficients, the composite reliability and the AVE results of the instruments that were used in this study. Except for the construct of Family-Friendly Organisational Culture, all the measurement instruments obtained acceptable internal consistency values for both the alpha scores as well as the composite reliability scores (i.e. the scores exceeded .70). Family-Friendly Organisational Culture obtained an alpha value of .66 which fell beneath the critical cut off value of .70. Yet, the construct obtained a composite reliability of .80 which is well above the critical cut off value of .70. All the measurement instruments[6] obtained acceptable convergent validity (i.e. their AVE values were equal to or exceeded .50), except for the Work-Family Enrichment and Occupational Coping Self-Efficacy scales, as their AVE values were below .50. These results were noted as limitation of this study in terms of the interpretation of further results derived for these constructs.

4.2.2 Discriminant validity

Table 4.2 below presents the discriminant validity results calculated according to the Heterotrait-Monotrait ratio (HTMT). The HTMT method was used to assess discriminant validity as it is able to achieve “higher specificity and sensitivity rates” in comparison to other methods (Ab Hamid, Sami, & Mohmad Sidek, 2017, p. 3). According to Henseler, Ringle, and Sarstedt (2015, p. 121), the HTMT technique is “an estimate of the correlation between the constructs ξi and ξj, which parallels the

[6] As it can be noted above, the family time and flexible working arrangements constructs are not present in the results for the outer model (Table 4.1). The family time and flexible working arrangements scores were calculated prior to the fitting of the PLS model (see sections 3.8.3 and 3.8.4 for a description of how these scores were calculated). As these variables were represented by only a total score, they could not be included in the outer model results.

disattenuated construct score correlation". Moreover, "if the indicators of two constructs ξi and ξj exhibit an HTMT value that is smaller than one, the true correlation between the two constructs is most likely different from one, and they should differ" (Henseler et al., 2015, p. 121).

Table 4. 1

Composite reliability, Cronbach alpha and AVE

Latent variable	**Manifest variable**	**Composite reliability**	**AVE**
Work-Family Enrichment	Perspectives (α=.96) Affect (α=.90) Time Management (α=.92) Social Capital (α=.87)	.76	.46
Family-Work Enrichment	Perspectives (α=.90) Affect (α=.90) Time Management (α=.91) Social Capital (α=.83)	.85	.60
Family Support	Emotional Support (α=.96) Instrumental Support (α=.93)	.89	.81
Organisational Support	Supervisor Support (α=.92) Co-worker Support (α=.94)	.84	.72
Family-Friendly Organisational Culture	Family-Friendly Organisational Culture (α=.66)	.80	.50
Occupational Coping Self-Efficacy[7]	Occupational Coping Self-Efficacy (α=.79)	.84	.40

Two ways exist for using the HTMT to evaluate discriminant validity, namely (1) as a criterion or (2) as a statistical test. For the purpose of this study, the HTMT was used as a statistical test. Using the HTMT as a statistical test involves creating confidence intervals for the HTMT (Henseler et al., 2015). If the value one falls within the

[7] In the first round of PLS analysis it was found that 3 items in the Occupational Coping Self-Efficacy instrument, did not load significantly onto this latent variable (i.e. the initial results for the outer loadings of the OCSE is reported and discussed in section 4.2.3). In addition, this first round of results revealed that the AVE for this scale was only 0.32. Therefore, these three items (described in detail in section 4.2.3) were removed from the item pool (as the instrument contained a sufficient amount of items left over, after this deletion), and the model was refitted without these items. The results reported in table 4.1 reflects the results from the second round of PLS analysis without the three problematic items.

confidence interval's range, discriminant validity is not attained. Should the value one fall outside the interval's range, it indicates that the two constructs are distinct from one another.

Tabel 4. 2

Discriminant validity (Heterotrait-Monotrait ratio)

	Ratio	95% lower	95% upper	Discriminate
Family Support -> Family-Friendly Organisational Culture	0.24	0.06	0.06	Yes
Family Time -> Family-Friendly Organisational Culture	0.19	0.14	0.11	Yes
Family Time -> Family Support	0.73	0.02	0.42	Yes
Family-Work Enrichment -> Family-Friendly Organisational Culture	0.34	0.09	0.17	Yes
Family-Work Enrichment -> Family Support	0.51	0.01	0.27	Yes
Family-Work Enrichment -> Family Time	0.60	0.05	0.33	Yes
Occupational Coping Self-Efficacy -> Family-Friendly Organisational Culture	0.35	0.12	0.29	Yes
Occupational Coping Self-Efficacy -> Family Support	0.46	0.01	0.23	Yes
Occupational Coping Self-Efficacy -> Family Time	0.50	0.06	0.24	Yes
Occupational Coping Self-Efficacy -> Family-Work Enrichment	0.43	0.04	0.23	Yes
Organisational Support -> Family-Friendly Organisational Culture	1.05	0.02	0.86	Yes
Organisational Support -> Family Support	0.19	0.07	0.04	Yes
Organisational Support -> Family Time	0.33	0.09	0.07	Yes
Organisational Support -> Family-Work Enrichment	0.24	0.07	0.10	Yes
Organisational Support -> Family Time	0.32	0.11	0.18	Yes

Table 4.2

Discriminant validity (continued)

	Ratio	95% lower	95% upper	Discriminant
Organisational Support -> Occupational Coping Self-Efficacy	0.72	0.02	0.39	Yes
Work-Family Enrichment -> Family-Friendly Organisational Culture	0.23	0.10	0.08	Yes
Work-Family Enrichment -> Family Support	0.47	0.08	0.17	Yes
Work-Family Enrichment -> Family Time	0.62	0.02	0.37	Yes
Work-Family Enrichment -> Family-Work Enrichment	0.43	0.09	0.25	Yes
Work-Family Enrichment -> Occupational Coping Self-Efficacy	0.97	-0.01	0.70	Yes
Work-Family Enrichment -> Organisational Support	0.24	0.06	0.06	Yes

From the results it is evident that all the measurement instruments displayed discriminant validity.

4.2.3 Evaluating the outer loadings

The outer loadings are examined to assess indicator reliability, thereby ensuring that the indicators of the latent constructs share the theoretical argument captured by the latent construct (Wong, 2016). The observed variables[8] for multidimensional constructs were denoted by subscales scores (e.g. four sub-dimensions were used to represent Work-Family Enrichment), whilst unidimensional constructs were denoted with item level responses (e.g. Occupational Coping Self-Efficacy). The outer loadings at either subscale or item level are presented and discussed below.

The outer loadings results of the Work-Family Enrichment scale at sub-scale level are presented below in Table 4.3. Except for the Perspectives subscale, all of the subscales loaded significantly onto the latent construct of Work-Family Enrichment.

[8] As was mentioned in section 4.2.1, no outer loadings were calculated for the family time scale and the flexible working arrangement scale, given the way in which the constructs' total scores were calculated for input into the final model.

The outer loadings of the significant subscales ranged from 0.63 to 0.84. The lack of a significant loading for the Perspectives subscale was noted as a limitation of the results obtained for the Work-Family Enrichment measurement instrument. The lack of this significant loading is also probably reflected in the below 0.50 AVE result obtained for this instrument. However, it was decided to retain this subscale in the analyses of the structural model results, so as to preserve the integrity of the Work-Family Enrichment construct in this study.

Tabel 4. 3

PLS-SEM outer loadings for Work-Family Enrichment: Subscale level

Scale	Subscales	Outer loadings	2.50%	97.50%	Significant
Work-Family Enrichment	Affect	.84	.72	.90	Yes
	Perspectives	.32	-.07	.65	No
	Social Capital	.81	.64	.90	Yes
	Time Management	.63	.25	.79	Yes

Table 4.4 shows the outer loadings for the Family-Work Enrichment scale at subscale level. As shown below, all the subscales' outer loadings were significant with outer loading values ranging from .58 (Time management) to .92 (Affect).

Tabel 4. 4

PLS-SEM outer loadings for Family-Work Enrichment: Subscale level

Scale	Subscales	Outer loadings	2.50%	97.50%	Significant
Family-Work Enrichment	Affect	.92	.86	.95	Yes
	Perspectives	.74	.58	.87	Yes
	Social Capital	.82	.65	.89	Yes
	Time Management	.58	.24	.75	Yes

The outer loading results of the Family Support construct are presented below in Table 4.5. Both subscales (Emotional Support and Instrumental Support) loaded significantly onto the construct of Family Support. With a value of .95, the outer loading for Emotional Support was remarkably high.

Tabel 4. 5

PLS-SEM outer loadings for Family Support: Subscale level

Scale	Subscales	Outer loadings	2.50%	97.50%	Significant
Family Support	Emotional Support	.95	.90	1	Yes
	Instrumental support	.84	.57	.92	Yes

Table 4.6 shows the outer loadings of the Organisational support construct at subscale level. The two subscales, Co-worker Support (.85) and Supervisor Support (.86), loaded significantly onto the construct of Organisational Support.

The outer loading results of the Family-Friendly Organisational Culture instrument, at item level, are presented below (Table 4.7). All the items' outer loadings were significant with outer loading values ranging from .63 (item 3) to .74 (item 2).

Tabel 4. 6

PLS-SEM outer loadings for Organisational Support: Subscale level

Scale	Subscales	Outer loadings	2.50%	97.50%	Significant
Organisational Support	Co-Worker Support	.85	.71	.93	Yes
	Supervisor Support	.86	.72	.93	Yes

Tabel 4. 7

PLS-SEM outer loadings for Family-Friendly Organisational Culture: Item level

Scale	Subscales	Outer loadings	2.50%	97.50%	Significant
FFOC	Item 1	.73	.45	.85	Yes
	Item 2	.74	.51	.87	Yes
	Item 3	.63	.32	.83	Yes
	Item 4	.71	.41	.84	Yes

Note. The acronym FFOC refers to Family-Friendly Organisational Culture

As shown below in Table 4.8, the outer loadings of the items 1[9] to 8 of the Occupational Coping Self-Efficacy scale loaded significantly onto the latent construct of Occupational Coping Self-Efficacy. However, items 9, 10 and 11 were found to insignificant in the first round of PLS analysis that was conducted. All three the items were related to doing research: supervising a student research project (item 9), publishing research (item 10), and segmenting time into research and teaching responsibilities (item 11). Subsequently, these three items were removed from the item pool and the model was refitted (see Table 4.9). As a result, the composite reliability increased from .82 to .84 (Δ=.02) and the AVE increased from .32 to .40 (Δ=.08).

Tabel 4. 8

PLS-SEM outer loadings for Occupational Coping Self-Efficacy: Item level

Scale	Subscales	Outer loadings	2.50%	97.50%	Significant
OCSE	Item 1	.54	.2	.70	Yes
	Item 2	.65	.35	.78	Yes
	Item 3	.60	.21	.75	Yes
	Item 4	.55	.21	.73	Yes
	Item 5	.66	.28	.81	Yes
	Item 6	.70	.37	.81	Yes
	Item 7	.68	.31	.81	Yes
	Item 8	.69	.36	.82	Yes
	Item 9	.41	-.11	.74	No
	Item 10	.23	-.36	.65	No
	Item 11	.19	-.35	.61	No

Note. The acronym OCSE refers to Occupational Coping Self-Efficacy.

It is not clear as to why these items did not work as well as the other items, but it could be argued that the nature of the sample could have contributed to this phenomenon. When the job level characteristics of the sample were scrutinised, it was apparent that 58.4% of the sample were made up of individuals that were

[9] Items 1 to 8 related to student interaction and lecturing responsibilities and asked participants how confident they felt coping with difficulties with students, difficulties with a student's parents and doing a lot of tasks at the same time. Items 9 to 11, in turn, related to an academic's research responsibilities and asked participants to rate how confident they felt coping with difficulties in supervising student research projects, difficulties in publishing research and difficulties in segmenting time into research into teaching responsibilities.

employed at lower job levels (i.e. junior lecturer, lecturer and senior lecturer). Although research is a core component of any academics' responsibilities, it is probable that coping related to this job demand (i.e. deliver research outputs) did not emerge as clearly, as it would have when the entire sample were made up of professors or associate professors (i.e. the job levels where research is a more core component to the performance appraisal process).

Tabel 4. 9

PLS-SEM outer loadings for Occupational Coping Self-Efficacy after the removal of items 9, 10 and 11: Item level

Scale	Subscales	Outer loadings	2.50%	97.50%	Significant
OCSE	Item 1	.53	.21	.71	Yes
	Item 2	.67	.39	.80	Yes
	Item 3	.63	.30	.79	Yes
	Item 4	.55	.18	.73	Yes
	Item 5	.64	.32	.80	Yes
	Item 6	.68	.42	.81	Yes
	Item 7	.66	.30	.80	Yes
	Item 8	.71	.42	.84	Yes

4.3 PLS results: Validating the structural (inner) model

To evaluate the combined effect the exogenous variables have on the endogenous variables, the R^2 values of the endogenous variables were inspected. Table 4.10 displays the endogenous variables in the model and their corresponding R^2 values. Work-Family Enrichment had the largest R^2 value (.41), thus indicating that 41% of the variance in Work-Family Enrichment was explained by the exogenous latent variables in the model. Moreover, an R^2 value of .41 is indicative of a predictive accuracy of a fairly moderate strength. Consequently, the model was fairly successful in predicting variance in Work-Family Enrichment. Family-Work Enrichment obtained the second largest R^2 value of .29, which meant that 29% of the variance in Family-Work Enrichment is explained by the exogenous latent variables in the model. An R^2 value of .29 is slightly higher than .25, which indicates weak predictive accuracy. Occupational Coping Self-Efficacy obtained an R^2 value of .12, thereby suggesting 12% of the variance in Occupational Coping Self-Coping to be attributed to the exogenous latent variables in the model. A R^2 value of .12 indicates weak predictive accuracy. Family Time displayed an R^2 value of 0, thus indicating that none of the

variance in Family Time was explained by the exogenous latent variables in the model.

Tabel 4. 10

R square values for the Enrichment Structural Model

Variable	R Square
Work-Family Enrichment	.41
Family-Work Enrichment	.29
Family Time	.00
Occupational Coping Self-Efficacy	.12

The significance of the hypothesised paths in the model is presented below in Table 4.11. As shown below, only five of the ten hypothesised paths were found to be statistically significant. The significant paths are indicated in red in figure 4.1.

Tabel 4. 11

Path coefficients

Path	Path Coefficient	2.50%	97.50%	Significant	P-value from T-test
FFOC -> WFE	-.04	-.30	.31	No	.81
FS-> FWE	.26	.04	.52	Yes	.04
FT -> FWE	.36	.13	.56	Yes	.00
FWA -> FT	.02	-.24	.25	No	.84
FWA -> WFE	.19	-.02	.36	No	.05
FWE -> OCSE	.35	.06	.59	Yes	.01
OCSE -> WFE	.21	.03	.39	Yes	.02
OS -> WFE	.52	.23	.71	Yes	.00
FFOC_FWA Moderator -> WFE	-.15	-.37	.08	No	.17
OS_OCSE Moderator -> WFE	-.03	-.24	.13	No	.72

Note. FFOC = Family-Friendly Organisational Culture; WFE = Work-Family Enrichment; FS = Family Time; FEW = Family-Work Enrichment; FWA = Flexible Working Arrangements; OCSE = Occupational Coping Self-Efficacy.

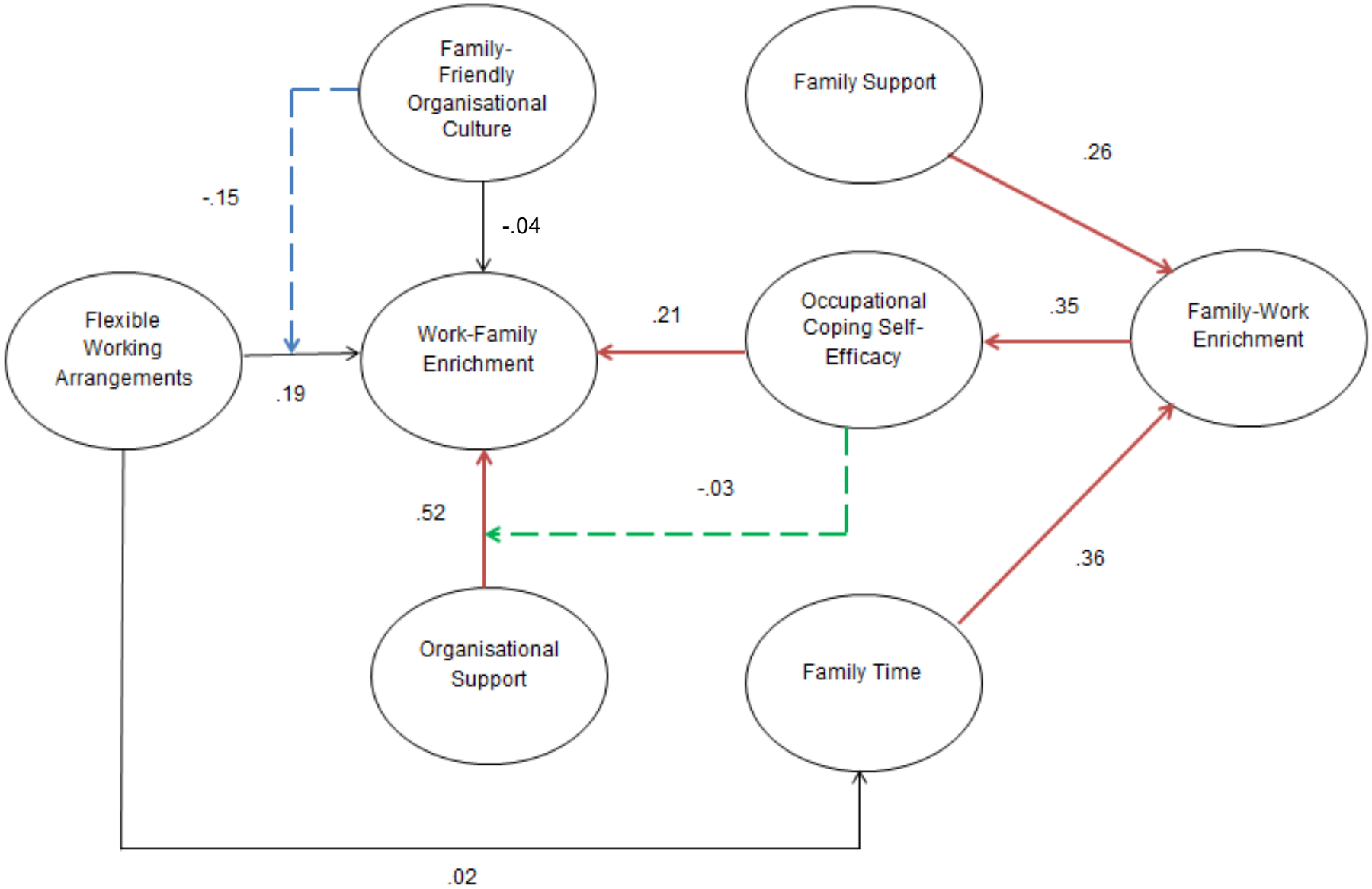

Figure 4. 1 The final Enrichment Structural Model with significant hypothesised effects.

4.4 Interpreting the proposed hypotheses

Hypothesis 1: Family support has a positive linear relationship with family-work enrichment.

Hypothesis 2: Family time has a positive linear relationship with family-work enrichment.

As depicted in Table 4.10, both hypotheses 1 and 2 achieved statistically significant path coefficients of .26 (hypothesis 1) and .36 (hypothesis 2), respectively. Both hypotheses obtained path coefficients that supported the hypothesised direction of the relationships. From the results it can be deduced that a positive relationship (.26) of a weak magnitude exists between family support and family-work enrichment. In a similar fashion, family time was shown to have a positive relationship (.36) of a weak magnitude with family-work enrichment. In chapter two it was argued that participation in multiple roles produces, rather than depletes, resources (Sieber, 1974). In accordance with enrichment theory, resources that originate in the family domain are transferred to the work domain, where it has the potential to improve an employee's functioning at work (Van Aarde & Mostert, 2008). The results of this study support the notion that more Family Support and Family Time are antecedents of higher levels of experienced Family-Work Enrichment. Consequently, it is concluded that the theoretical arguments underpinning hypotheses 1 and 2 were corroborated by the results.

Hypothesis 3: Flexible working arrangements have a positive linear relationship with work-family enrichment.

Hypothesis 4: Flexible working arrangements have a positive linear relationship with family time.

The PLS results indicated that both hypotheses 3 and 4 failed to achieve statistically significant path coefficients. Thus, no support for the hypothesised relationships between flexible working arrangements and work-family enrichment, and flexible working arrangements and family time was achieved. In support of hypothesis three it was argued that flexibility in one's work role allows employees to experience greater work-family enrichment as this allows them to engage more fully in family activities (De Klerk et al., 2012). Consequently, it was argued that flexible working

arrangements enable an employee to spend more time with their family (hypothesis 4). However, the results failed to indicate a significant relationship between flexible working arrangements and work-family enrichment (hypothesis 3), as well as flexible working arrangements and family time (hypothesis 4). Therefore, hypotheses 3 and 4 were not corroborated by the results of this study.

Hypothesis 5: Organisational support has a positive linear relationship with work-family enrichment.

Hypothesis 6: Family-friendly organisational culture has a positive linear relationship with work-family enrichment.

Hypothesis 7: Family-friendly organisational culture moderates the relationship between flexible working arrangements and work-family enrichment.

The results revealed that hypothesis 5 was supported with a statistically significant path coefficient of .52 ($p < 0.05$). The path coefficient of .52 indicated a positive relationship of a moderate magnitude between organisational support and work-family enrichment. The theoretical argument behind hypothesis 5 stated that organisational support (from co-workers and supervisors) assists employees in the integration of work and family role demands. Employees who experience their co-workers and supervisors to be supportive of their family responsibilities, experience more positive affect, energy and confidence. The positive affect, energy and confidence are, in turn, transferred to the employee's family role, thereby enabling work-family enrichment. From the results, it can be deduced that the experience of supportive co-workers and supervisors does indeed facilitate work-family enrichment.

Hypotheses 6 and 7 were not corroborated by the results. Both the hypotheses obtained path coefficients that were not statistically significant ($p > 0.05$). Consequently, no support for the direct relationship between family-friendly organisational culture and work-family enrichment (hypothesis 6) was found. In chapter two, a family-friendly organisational culture was defined as one in which the organisation "supports and values the integration of employee's work and family lives" (Thompson et al., 1999, p. 394). In this study it was argued that when organisations create family-supportive environments and implement family-friendly policies and practices, it would to enable their employees to experience greater work-

family enrichment. However, the results of the study failed to provide evidence to corroborate this argument.

The results also revealed a lack of support for the moderating effect of family-friendly organisational culture in the relationship between flexible working arrangements and work-family enrichment (hypothesis 7). It was hypothesised that employees' use of flexible working arrangements is influenced by the extent to which they perceive the organisation to be family-supportive (Allen, 2001). By adopting a family-friendly culture, the organisation reassures its employees that their family responsibilities will not be held against them (Baral & Bhargava, 2011). Consequently, it was argued that the effect of using flexible working arrangements on experienced work-family enrichment will be influenced by the belief that it will not jeopardise their career (i.e. when a positive family friendly culture exist). Yet, the results failed to achieve support for this moderating effect.

Hypothesis 8: Occupational coping self-efficacy has a positive linear relationship with work-family enrichment.

Hypothesis 9: Family-work enrichment has a positive linear relationship with occupational coping self-efficacy.

Hypothesis 10: Occupational coping self-efficacy moderates the relationship between organisational support and work-family enrichment.

The results (see Table 4.10) indicated support for hypotheses 8 and 9, as statistically significant path coefficients of .21 (hypothesis 8) and .35 (hypothesis 9) emerged, respectively. The results also corroborated the hypothesised direction of the relationships. In other words, the results confirmed that occupational coping self-efficacy does indeed have a positive linear relationship with work-family enrichment. It was argued that individuals with higher levels of occupational coping self-efficacy (OCSE) are more inclined to approach challenging work-related demands in an active and persistent way (Pisanti et al., 2015). Moreover, Viera et al. (2016) found active coping strategies to be related to an individual's ability to balance work and family. Therefore, it was argued that individuals higher on OCSE are more likely to experience work-family enrichment as they are more able to utilise resources gained from participating in multiple roles.

The results also indicated that family-work enrichment has a positive linear relationship of a weak magnitude with occupational coping self-efficacy. The resources gained in the family domain are transferred to the work domain, where it assists the employee in dealing with work-related stressors. It was argued that the skills, knowledge, values and perspectives generated in the family domain aid the employee in developing active coping strategies, thereby strengthening their beliefs about their ability to deal with the stressors they encounter in the workplace. Thus, the results corroborated the theoretical arguments underpinning hypotheses 8 and 9.

However, no support emerged for the moderating effect of occupational coping self-efficacy on the relationship between organisational support and work-family enrichment (hypothesis 10). In chapter two it was suggested that the extent to which organisational support is successful in facilitating work-family enrichment may be dependent on an individual's level of self-efficacy. When individuals with higher levels of self-efficacy receive support, they are more likely to view the support as helpful and the support they receive acts as a buffer against stressful work events. In contrast, it was argued that when employees with low levels of self-efficacy receive support, they do not consider the support helpful as it makes them even more self-conscious of their perceived inadequacies (Stetz et al., 2006). Yet, this argument was not supported by the results since the path coefficient for hypothesis 10 was found to be statistically insignificant.

4.5 Summary

In this chapter, the PLS results of the structural model were presented and discussed. The outer loadings of the subscales were evaluated and the path coefficients of the hypothesised relationships and the interpretation thereof were discussed. The next chapter will provide an in-depth discussion of the research results and the implications thereof. In addition to the discussion of the research results, the limitations of the study, the recommendations for future research and the managerial implications will be presented and discussed.

CHAPTER 5: DISCUSSION

5.1 Introduction

Despite the growing number of women entering the workforce, society stills views women as primary caregivers. Working women, therefore, have to juggle the role of wife, mother, homemaker and career women (Zulu, 2003). Yet, work and family obligations are often incompatible, thus resulting in work-family conflict. The situation in higher education institutions is no different. Female academics often struggle to maintain a balance between their work expectations and family responsibilities. Mastering a heavy teaching load, engaging in research and managing family responsibilities can be challenging. Moreover, working long hours is often considered as expected behaviours in universities (Santos & Cabral-Cardoso, 2008). It has been reported that some female academics feel that they are not allowed to complain about a heavy workload, because it has been argued that "it was their choice to have children" (Rafnsdóttir & Heijstra, 2013). Nevertheless, family and work cannot be considered as two separate domains – they are interdependent (Baral & Bhargava, 2011). Tertiary institutions should attempt to integrate the multiple roles of women within academia. In order to retain female academics, tertiary institutions should focus on the positive side of the work-family interface. The experience of women in their multiple roles may enhance their functioning in other areas of life. Consequently, enrichment and related concepts were studied.

Set within the framework of Greenhaus and Powell's (2006) enrichment theory, this study aimed to investigate female academics' experiences of enrichment. Instead of focusing on the negative effects of combining work and family roles, Greenhaus and Powell's theory is based on the notion that work experiences can enrich family life and that family experiences can enrich work life. Moreover, Greenhaus and Powell (2006) found the generation of resources (from both the work and family domain) to be an important driver of the enrichment process. This notion is supported by the theoretical foundations of the role accumulation theory (Sieber, 1974) and the Conservation of Resources (COR) theory (Hobfoll, 1989). The role accumulation theory is based on the notion that participation in multiple roles (e.g. work and family) produces, rather than depletes resources. Moreover, Hobfoll (1989) argued that people strive to retain, protect and build resources. These resources, in turn, are used to obtain and develop more resources. Consequently, people with greater

resources are less affected by the depletion of resources associated with conflicting role demands (Jaga & Bagraim, 2011; Van Aarde & Mostert, 2008). Therefore, based on the assumptions of both accumulation and COR theory, it was argued that resources play a critical role in an employee's ability to manage the conflict that arises from participating in multiple life roles. In response to the research initiating question "Why is there variance in female employees' experience of work-family and family-work enrichment?", the study aimed to investigate the factors that could influence female academics' experience of enrichment, as well as the potential spillover of positive experiences from the family domain to the work domain.

An introductory discussion of women in the workplace and the importance of studying enrichment, along with the research initiation question and research objectives were presented in chapter one. In chapter two, theoretical arguments were compiled via theorising and a literature review. A structural model was developed to visually represent the resources that facilitate work-family and family-work enrichment and the hypothesised relationships between the variables. Chapter three discussed the methodological process that was followed to empirically evaluate the proposed structural model. The model was tested with the PLS data analysis technique and the results of the analysis were presented. This chapter provides a discussion of the results, and emphasises the theoretical and practical implications of the study. The purpose of this chapter is to evaluate the extent to which the model successfully explicated the phenomenon of interest in such a manner as to add understanding of how the selected variables impact on each other. In addition to the implications of the results, this chapter also explores the limitations of the study, as well as suggesting recommendations for future research on the topic of the process of enrichment and its antecedents.

5.2 Discussion of results

In response to the research initiating question of "*Why is there variance in female academics' experience of work-family and family-work enrichment?",* the work-family enrichment model of Greenhaus and Powell (2006) was studied. In their work-family enrichment model, Greenhaus and Powell (2006) stressed the importance of resources as drivers of the enrichment process. They defined resources as assets that are generated in one role (e.g. work) that can be drawn on to solve a problem or to cope with a challenging situation in a second role (e.g. family) (Dunn & O'Brien,

2013; Greenhaus & Powell, 2006). Furthermore, five types of resources were found to promote enrichment, namely (1) skills and perspectives, (2) psychological resources and physical resources, (3) socio-capital resources, (4) flexibility and (5) material resources (De Klerk et al., 2012). Greenhaus and Powell also proposed two pathways by which resources can be transferred from one role to another: the instrumental path where resources are transferred directly from one role to another, and the affective path where resources from one role indirectly, through positive affect or high performance, influence performance in the other role (Dunn & O'Brien, 2013).

In addition to Greenhaus and Powell's (2006) enrichment theory, the *Conservation of Resources* (COR) theory (Hobfoll, 1989) and the *Job-Demands Resources* (JD-R) model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) were also applied as frameworks for explicating the importance of resources in the enrichment process. These theories stress the importance of resource accumulation in the enrichment process: resources assist the individual in coping with conflicting role demands and, in doing, so facilitate greater enrichment.

Building on the theoretical foundations of Greenhaus and Powell's (2006) model, COR theory and the JD-R model, this study identified work and family resources and the role they play in the enrichment process of female academics. Work resources that were studied included organisational support, flexible working arrangements, family-friendly organisational culture and occupational coping self-efficacy. It can be argued that these resources represent four of the five types of resources as identified by Greenhaus and Powell (2006): perspectives (family-friendly organisational culture), psychological resources (occupational coping self-efficacy), social capital (organisational support) and flexibility (flexible working arrangements). In addition to the above mentioned work resources, the following family resources were also identified: family support and family time. Both family support and family time represent Greenhaus and Powell's (2006) notion of social capital. The *Enrichment Structural Model* illustrates the linkages between these resources and work-family and family-work enrichment. While the chosen resources' impact on the enrichment process is supported by literature, only some of the hypothesised relationships were found to significant in the current study. More specifically, support was found for five of the ten hypothesised relationships. These included the relationships between (1)

family support and family-work enrichment (hypothesis 1), (2) family time and family-work enrichment (hypothesis 2), (3) organisational support and work-family enrichment (hypothesis 5), (4) occupational coping self-efficacy and work-family enrichment (hypothesis 8), and (5) family-work enrichment and occupational coping self-efficacy (hypothesis 9). The supported relationships provide valuable insight into the resources that are critical for enhancing female academics' experiences of work-family and family-work enrichment.

5.2.1 Family resources

The results of this study indicated positive linear relationships between the two family resources included in the model (i.e. family support and family time) and family-work enrichment. In chapter two, the availability of social resources was argued to be an important driver of both work-family and family-work enrichment. A review of existing literature linked family support to positive organisational outcomes: employees with supportive family members were more engaged and satisfied with their jobs (Hakanen et al., 2011; Marais et al., 2014). Support from family acts as a resource which leads to positive outcomes in the family such as family satisfaction and family functioning. Supportive family members show interest in one another's activities and interests and respond appropriately to one another's emotions (Carlson, Thompson, Crawford & Kacmar, 2019). Having an understanding environment at home facilitates positive interactions with family members and these positive emotions are transferred to the workplace where it, in turn, improves functioning and quality of life (Jain & Nair, 2017). Therefore, it was argued that the support female academics received from family members along with their positive involvement in the family domain, can lead to a greater experience of family-work enrichment.

For the purpose of this study, King et al. (1995)'s definition of social support was used in which social support is divided into two types of social support, namely emotional and instrumental support. Emotional and instrumental support and its associated effect on the enrichment process link with Greenhaus and Powell's (2006) notion that the transfer of resources can either follow an instrumental path or an affective path. Instrumental support in the form of assistance with day-to-day household activities, provide employees with more time and energy to carry out their work activities which, in turn, leads to more fulfilling work experiences and positive affect (Wayne et al., 2006). In a study conducted by Ross et al. (as cited in

Steinberg, True, & Rosso, 2008) it was reported that female employees who shared childcare and household responsibilities with their partners experienced lower levels of work-family conflict. Moreover, women who shared household and childcare tasks with her partner experienced greater marital satisfaction. This provides support for Greenhaus and Powell's (2006) argument that resources can be transferred from one role (family) to another (work) where it enhances performance and in turn positive affect.

Emotional support from family members generates positive emotions (e.g. feelings of love and care) which can have a calming effect on employees when they are at home (Lapierre & Allen, 2006). These positive emotions spill over from the family domain to the work domain where it offsets work-related strain (Steinberg et al., 2008). The love and respect an employee receives at home inspire greater confidence in the employee's work role (Greenhaus & Powell, 2006). This alludes to Greenhaus and Powell's (2006) affective pathway as it is argued that positive affect generated in the family role produces high performance and positive affect in the work role. Rothbard (as cited in De Klerk et al., 2012) found a person experiencing positive affect to be more "psychologically available to engage in another role" (p. 685). This positivity facilitates the transfer of resources gained in the family domain to the work domain more effectively (Jain & Nair, 2017). Friedman and Greenhaus (2000) report similar findings when evaluating the relationship between family support and family-work enrichment: they reported a positive relationship between family support and career success, career development, and satisfaction at work. Consequently, the results support this notion that having supportive family members facilitates family-work enrichment.

The results revealed a significant relationship between family time and family-work enrichment. It was argued that experiencing quality time with family should allow an employee to more adequately recover after a day at work. For the purposes of this study, 'family' was defined as a spouse and / or children, and family time was conceptualised as quality time spent with family members that facilitates adequate recovery. This definition was based on the *Effort-Recovery* (E-R) model. The E-R model is based on the premise that excessive demands in the work domain will not impact functioning in the family domain, as long as adequate recovery takes place during time with family (Demerouti et al., 2009) Moreover, quality time with family

was divided into four types of activities, namely 1) talking to or playing with spouse and / or children, 2) leisure activities such as watching a movie with your children, 3) social activities such as talking to and playing with family, and 4) eating meals together with your family. Participants were asked to indicate how often they have quality or meaningful family time, as well as how refreshed or rejuvenated they felt after said session. In a study conducted by Hill (2005), time spent with family was associated with greater work-family facilitation (i.e. the extent to which engagement in one role leads to growth in another role) and less individual stress. Spending time with one's spouse and children acts as a resource, rather than a stressor and enables an individual to better manage individual stress. According to Paustian-Underdahl, Halbesleben, Carlson, and Kacmar (2013) parenting and other caregiving activities enable an employee to develop skills and perspectives outside of the work domain, for example multitasking, empathy and being respectful towards others. Moreover, spending time with family generates positive emotions which help to put an employee in a good mood while they are at work. Consequently, family-work enrichment acts as a mechanism through which resources generated in the family domain (e.g. skills, perspectives and positive emotions) are transferred to the workplace. Therefore, it can be concluded that family time does indeed facilitate family-work enrichment among female academics.

5.2.2 Work resources

In the present study, the following work resources were hypothesised to facilitate work-family enrichment: flexible working arrangements, family-friendly organisational culture, organisational support and occupational coping self-efficacy.

The present study examined the relationship between flexible working arrangements, as a work resource, and work-family enrichment. It was hypothesised that greater flexibility in one's work role would allow the employee to engage more fully in family activities (Greenhaus & Powell, 2006). Flexible work roles allow the employee to better manage demands from both work and family, which facilitates greater work-family enrichment (De Klerk et al., 2012). As a result, employees experience greater family satisfaction. The interaction between flexibility and the work-family interface can be best understood by means of the Effort-Recovery (E-R) model. The E-R model theorises that effort expended at work (e.g. task performance) is associated with physiological and psychological costs. However, these costs are reversible as

long as adequate recovery takes place after work (Hughes & Parkes, 2007; Van Aarde & Mostert, 2008). Having some control over one's work hours may aid an employee's recovery from work by allowing them to work at times most favourable to them (Hughes & Parkes, 2007). Consequently, flexible work schedules facilitate better management of work and family demands, resulting in less stress and burnout and greater recovery (Galea, Houkes, & De Rijk, 2014).

Previous studies (Carlson et al., 2019; Friedman & Greenhaus, 2000; Greenhaus & Powell, 2006; Jaga et al., 2013; McNall et al., 2009; Michel & Michel, 2015; Rastogi et al., 2016) supported the notion of a positive relationship between flexible working arrangements and work-family enrichment. Yet, when the relationship was tested in an academic environment in this study, this relationship was found to be insignificant. The lack of a significant relationship may possibly be attributed to a restriction of range, as it may be possible that some, or a lot of employees, do not utilise the flexible working arrangements available to them. For example, in a recent study on burnout in academics conducted at the same institution (as this study) and in the same timeframe as this study, the results revealed that of the four flexible work arrangements that were included in the survey (i.e. flexitime, compressed work week, telecommuting and part time work – which according to policy were available to the employees) only flexitime was indicated to be available to most academic employees (85% of them) within their respective environments. Furthermore, when asked about the frequency of use of available flexible work arrangements, even though most indicated that they could use a flexitime arrangement, most indicated that they only use it "rarely" to "sometimes".

Simply offering flexible working arrangements may not be enough for employees to feel comfortable using these benefits (Baranczyk, 2013). A supportive organisational culture is required to ensure that employees feel comfortable utilising family-friendly benefits (Callan, 2007). Organisational culture has a powerful effect on employees' behaviour: they internalise their work culture and adjust their behaviour to it (Jaga, Arabandi, Bagraim, & Mdlongwa, 2018). In a study conducted by Jain and Nair (2017) a positive organisational culture (wherein the focus is more on family-friendly aspects) emerged as the most important aspect of organisational support, when compared to other family-friendly benefits such as flexible working arrangements and supervisor support. In most academic institutions, flexible working hours is an internal

departmental or division practice and is based on a formal agreement between the line manager and the employee. According to Allen (2001) line managers act as "gatekeepers" of family-friendly policies by "encouraging or dissuading employees from using them" (p. 1679). Moreover, in the formulation of their work-family enrichment model, Greenhaus and Powell (2006) argued that flexibility resulting from one role (e.g. work) will be seen as relevant to the other role (e.g. family) when there are strong expectations to participate in the other role from other role models. Consequently, it could be argued that female academics with line managers who are not supportive of their family responsibilities, are more likely to refrain from using the benefits available to them, out of fear that this might negatively influence their career progression. According to Steinberg et al. (2008) women, especially mothers, are still stereotyped as caregivers and nurturers, and not as committed workers. Furthermore, Bailyn (2003, p. 143) made the following statement on the barriers that hinder women's career progress in academia: "…assumptions about competence and success have led to practices and norms that are constructed around the life experiences of men, and around a vision of masculinity as the normal, universal requirement of university life". This statement alludes to a pervasive culture that possibly still exists to a certain degree in some departments or divisions at different higher education institutions: a culture that is not supportive of women's family responsibilities. Work-home policies that stem from a gender perspective may be regarded by employees and employers as largely policies for women (Lewis, 2010). Consequently, flexibility and gendered time use might lead to the reproduction of traditional power dynamics between men and women, which may further dissuade female employees from using such benefits (Beigi & Shirmohammadi, 2017).

The impact of a positive organisational culture on the work-family interface cannot be overlooked. Consequently, the relationship between a family-friendly culture and work-family enrichment was tested, as well as the moderating effect of a family-friendly organisational culture on the relationship between flexible working arrangements and work-family enrichment. However, no support was obtained for either of the hypothesised relationships. The lack of support for these relationships may be due to a restriction of range in the data, i.e. if there was not enough of a "spread" in terms of the range of culture in the surveyed organisation. For example, an unsupportive organisational culture undermines the effectiveness of work and

family integration (Jaga et al., 2018), and therefore, if the culture was mostly unsupportive, then this would possibly affect the possibility of finding a relationship between family-friendly culture and work-family enrichment. Callan (2007) suggests that “old, deeply embedded, implicit assumptions” continue to influence workplace policies. Moreover, Lewis and Taylor (as cited in Callan, 2007, p. 675) argue that organisational cultures are “grounded in deep-seated beliefs about gender, the nature of work and the ideal employee, which reflect societal norms and are often implicit or even unconscious and are therefore difficult to challenge”. In a study conducted by Jaga et al. (2018), women were interviewed about their concerns regarding work-family management, and one of the primary concerns expressed by these women was the inaccessibility to family-friendly resources. Among these women, inaccessibility to family-friendly resources were perceived to be the outcome of management’s insensitivity and poor institutional support for those attempting to balance work and family demands. Consequently, an unsupportive culture hinders the implementation and utilisation of family-friendly policies among employees.

Lack of support for the relationship between flexible working arrangements and work-family enrichment, and the moderating effect of a family-friendly organisational culture on said relationship, may be attributed to some other reason. It could be that, for some employees, greater flexibility might create conflict (as opposed to work-family enrichment) as the boundaries between work and home become blurred. Gopalan, Grzywacz, and Cui (2018) argue that flexibility could create conflict as it blurs the boundaries between work and family. Moreover, the use of technology amplifies the unclear boundaries between work and family as it facilitates communication irrespective of distance or location. Wireless access to the internet via smartphones has a significant effect on how many hours employees work per day (Derks, Mierlo, & Schmitz, 2014). With this technology, an employee's working hours is often extended to the evening hours, making psychological detachment from work almost impossible.

According to Chesley (2005), the use of technology, particularly communications technology, is associated with negative spillover between work and family. The assumption of a negative spillover between work and family is based on the *role boundary permeability hypothesis:* Ashforth, Kreiner, and Fugate (2000, p. 474) define role boundary permeability as “the degree that a role allows one to be

physically located in the role's domain, but psychological or behaviourally involved in another role". This hypothesis supports the notion that the use of technology during non-working hours hinders employees from psychologically detaching from work.

For recovery (after a day's work) to occur, psychological detachment from work outside of work hours is vital. Lack of psychological detachment from work may have a negative effect on social interactions with families (Sonnetag, 2012). Excessive use of technology during non-working hours takes away time from family activities which, in turn, leads to greater distress and lower family satisfaction (Chesley, 2005; Williams & Merten, 2011). Consequently, no support was found for the hypothesis relationship between flexible working arrangements and family time. In this study it was proposed that flexible working arrangements would allow employees to participate more fully in family life (Greenhaus & Powell, 2006). Yet, following the above reasoning, it could be that greater flexibility creates unclear boundaries between work and home, which possibly results in more work-family conflict (as opposed to enrichment).

Yet, it would be of value to investigate an employee's work-home segmentation preference when studying the relationship between flexible working arrangements, technology use and psychological detachment. Segmentation preferences are based the theoretical foundation of *boundary theory*: individuals create and maintain boundaries in an attempt to simplify and regulate the environment (Ashforth et al., 2000). More specifically, individuals tend to have boundaries between work and family and, as a result, the work and family domains are defined by the boundaries surrounding those roles (Paustian-Underdahl et al., 2013). According to Ashforth et al. (2000) boundaries between work and family affect the transfer of resources: the amount of flow between domains are minimised to the extent to which segmentation occurs, while the flow is maximised by the extent to which integration occurs (Paustian-Underdahl et al., 2013). Segmentation occurs when an individual maintains a clear separation between work and family (Park, Fritz, & Jex, 2011). Integration, as opposed to segmentation, occurs when the boundaries between work and family are more permeable, allowing an individual to quickly switch roles to meet the needs of different domains (Yang, Zhang, Shen, Liu, & Zhang, 2019). Consequently, an employee who prefers clear separation between work and home will restrict the use of technology during non-work time and will most likely experience greater

psychological detachment after work (Park et al., 2011). An employee with weak segmentation preference (in favour of greater integration) are less likely to restrict the use of technology at home, thereby facilitating lower levels of detachment after work and greater levels of work-family conflict (Yang et al., 2019).

Another work resource that was hypothesised to predict greater work-family enrichment, was organisational support (from co-workers and supervisors). The results revealed a significant relationship between organisational support and work-family enrichment, a finding similar to that of previous studies which indicated that organisational support (from co-workers and supervisors) assist employees to successfully integrate work and family role demands (Baral & Bhargava, 2011; Jaga et al., 2013; Siu et al., 2013). Organisational support (from co-workers and supervisors) may consist of both instrumental support and emotional support. Instrumental support from supervisors occurs when supervisors allow employees to freely schedule their work hours or to take leave when they have a family emergency. In doing so, they communicate their concern for employees' work-family challenges. Instrumental support from supervisors once again supports Greenhaus and Powell's (2006) notion of an instrumental pathway to enrichment: resources (i.e. support from supervisors) generated in the work domain are transferred to the family domain where it leads to improved performance and, in turn, positive affect. Moreover, Siu et al. (2013) report that supervisor support is positively related to job satisfaction. Job satisfaction, in turn, produces greater feelings of confidence, energy and positive affect which spill over into the family domain, thus enabling work-family enrichment.

Supervisors and co-workers can also provide fellow employees with emotional support. Emotionally supportive supervisors and co-workers listen to a fellow employee's problem, show understanding, and provide them with information or advice. By affirming that their family responsibilities will not be held against them, supervisors increase employees' confidence and satisfaction in both the work and family domain, thereby increasing their ability to manage role conflicts, which may arise from juggling work and family demands. Social support from supervisors or co-workers reduces role stress, resulting in greater feelings of positive affect (Russo, Buonocore, Carmeli, & Guo, 2018). Positive affect in the work domain spill over into the family domain where it enhances quality of life (Jain & Nair, 2017). The transfer of positive affect from one role to another relates to Greenhaus and Powell's (2006)

affective pathway to enrichment: resources generated in the work role increase the positive affect within this role which, in turn, increases functioning in the family role (Ghislieri, Gatti, Molino, & Cortese, 2017).

Gayathri and Karthikeyan (2016) argued that employees with high self-efficacy are more capable to utilise the resources gained from participating in multiple roles. Furthermore, the acquisition of personal resources (such as self-efficacy) make employees more emotionally and intellectually capable of dealing with the stressors that originate from participating in multiple roles (Russo et al., 2018). Greenhaus and Powell (2006) claimed that the transfer of psychological resources (such as self-efficacy) follows an affective pathway to enrichment. The instrumental pathway to enrichment is based on the premise that the decision to apply a resource from one role to another is intentional. Therefore, the transfer of self-efficacy from one role to another cannot follow the instrumental path, as the decision to apply self-efficacy is not necessarily a conscious decision (Greenhaus & Powell, 2006).

In this study, a more specific type of self-efficacy was studied, namely occupational coping self-efficacy. Occupational coping self-efficacy was hypothesised to have a positive relationship with work-family enrichment. Occupational coping self-efficacy (OCSE) relates to an employee's belief about their ability to deal with situational stressors and the coping abilities they utilise to deal with workplace stressors (e.g. work overload or conflict with co-workers and supervisors) (Pisanti et al., 2015). Employees with higher levels of OCSE are more inclined to approach challenging environmental demands in an active and persistent way. Consequently, these individuals utilise active coping strategies, which equips them with the necessary problem-solving skills to better manage work and family, thus facilitating work-family enrichment.

In addition to the positive relationship between OCSE and work-family enrichment, a positive relationship between family-work enrichment and OCSE was also proposed. It was argued that positive spillover occurs between the caregiver role and the employment role. For example, Stephens et al. (as cited in Greenhaus & Powell, 2006) found that women who were able to handle caregiving responsibilities well, experienced greater confidence in their work role. Similarly, House (1981) suggested that the positive relationship between spousal support and career success may be

due to the self-esteem derived from emotional support received from home. The results of this study revealed a significant relationship between family-work enrichment and OCSE, thereby providing support for the argument presented above.

Pisanti et al. (2015) suggested that the extent to which organisational support is successful in buffering work-related stressors may be dependent on an employee's level of self-efficacy. A study conducted by Stetz et al. (2006) corroborates the Pisanti et al. (2015) assumption: when employees with higher levels of self-efficacy receive support they tend to view the support as helpful. Employees with high self-efficacy tend to have confidence in their abilities and are generally more positive about their work. Subsequently, individuals with higher self-efficacy are more likely to appraise the support they receive as helpful (Stetz, 2006). They perceive the support as enabling and the support acts as a buffer against stressful work events (Pisanti et al., 2015). Hence, it was hypothesised that OCSE moderates the effect of organisational support on work-family enrichment. Yet, the results of this study indicated no support for the moderating effect of OCSE on the relationship between organisational support and work-family enrichment.

5.3 Summary of the overall model

When evaluating the Enrichment Structural model as a whole it is evident that, of the resources that were identified as antecedents to enrichment, the family resources were all found to facilitate higher levels of family-work enrichment. Of the work resources that were identified (i.e. organisational support, flexible working arrangements, family-friendly organisational culture and occupational coping self-efficacy), only organisational support and occupational coping self-efficacy (OCSE) were found to be indicative of higher levels of work-family enrichment. In addition to the significant relationship between OCSE and work-family enrichment, support was also obtained for the relationship between family-work enrichment and OCSE. Therefore, it can be argued that family resources predict greater family-work enrichment which, in turn, facilitates greater coping resources (OCSE). Greater coping resources (OCSE), in turn, facilitate higher levels of work-family enrichment.

The mediating role of OCSE can be understood by drawing on the theoretical foundations of *Social Cognitive Theory*. According to social cognitive theory, social and environmental factors influence an individual's attitudes and behaviours and,

thereby, ultimately affecting their self-efficacy beliefs (Bandura, 1986). By experiencing family-work enrichment, employees are more likely to benefit from the positive resources, experiences and emotions generated in the family domain. These positive resources, experiences and emotions, in turn, enhance the employee's self-beliefs about their ability to successfully manage challenges that may arise from juggling work and family demands (Chan et al., 2016). Employees with higher self-efficacy at work are more likely to use resources to exert control over events in their lives and to persevere in the face of challenges that may arise from a demanding environment. Moreover, self-efficacy does not only affect an individual's coping ability; it also has the ability to control any upsetting thoughts that the employee might experience (Chan et al., 2016).

Positive spillover can also account for the significant relationship between family-work enrichment and OCSE: positive affect experienced in the family role may increase self-efficacy in another role (e.g. work role) where it increases performance and, in turn, positive affect (Hanson, Hammer, & Colton, 2006). Initially a path between work-family enrichment and family time was included in the model to test the bi-directional nature of enrichment. However, this created a circular route in the model which could not be tested with PLS and, consequently, the path between work-family enrichment and family time was removed. Yet, it would have been of value to empirically investigate whether work-family enrichment does indeed lead to quality time spent with family via the transfer of positive affect. Theoretically it is argued that positive experiences at work facilitate positive emotions which spill over into the family domain: when employees arrive home from work in a positive mood, they are more likely to engage in quality family time (facilitating adequate recovery). According to the model, then, family time again predicts family-work enrichment, which predicts more occupational coping self-efficacy, feeding into more work-family enrichment, which ultimately, generates a positive gain spiral in terms of enrichment.

5.4 Recommendations for future research

Several recommendations to enhance future research in this domain can be suggested. Firstly, in an attempt to gain a better understanding of the complex relationship between work and family, future research should attempt to account for the variability in family. For the purpose of this study, a rather 'traditional' definition of 'family' was utilised. 'Family' was defined as a unit where the participant indicated

that they had a spouse and / or partner, and dependent children. However, it could be argued that this definition of 'family' may be somewhat outdated, and that the boundaries of a family unit should be broadened to include other types of family structures. For example, the nuclear form of the family (i.e. a couple and their dependent children) is no longer representative of the South African family structure (Makiwane, Makoae, Gumede, & Vawda, 2017; Sooryamoorthy & Makhoba, 2016). In addition to a nuclear family and extended family (other relatives, such as grandparents, aunts, uncles, cousins, etc. living in the same household), the South African family composition also includes, single parent female-headed families, caregivers who are relatives and non-relatives, guardians, reconstituted families, same-sex partners and polygamous relationships (Makiwane et al., 2017). Furthermore, an increase in the number of relatives accommodated within households has resulted in the occurrence of a greater proportion of three-generation linear households (Sooryamoorthy & Makhoba, 2016).

As a result of the changing composition of family structures in South Africa, family support will no longer comprise of only a supportive spouse or partner. According to Sooryamoorthy and Makhoba (2016), grandparents often have had to take responsibility for the care of their grandchildren as dual-earning couples are not always able to take children to extra-curricular activities after school. According to Baydar and Brooks-Gunn (as cited in Steinberg et al., 2008) women with infants and children between the ages of 3 and 5 years (i.e. pre-school age) report receiving emotional support, assistance with child care and household chores, and economic support, from the children's grandmothers. Some women are also in the position to purchase assistance to assist her in mitigating the stressors of managing work and family responsibilities. To this end, Steinberg et al. (2008) reported that women with access to child care support experienced less family-work conflict.

Secondly, it would also be of value to investigate the relationship between female academics' experience of enrichment, whilst controlling for the number of children they had, as well as the ages of the children[10]. According to Steinberg et al. (2008), working women with young children experience greater difficulty in managing work

[10] Although information about these demographic variables were collected in this study, the PLS analysis technique does not allow for the adding in of control variables (such as these demographic variables), to account for their presence in the results.

and family life. Children's age in relation to the different stages of parenting should also be studied. According to Hardy et al. (2018) five stages of parenting exist, namely infancy, toddlerhood, pre-school, school-age and adolescence; each with its own unique challenges. Moreover, having a greater number of children also has been shown to have an impact on women's psychological well-being (Steinberg et al., 2008). In the present study, respondents were asked to indicate how many children they had along with the ages of the children. Yet, due to analysis constraints, this information was only used to describe the sample.

Thirdly, Greenhaus and Powell (2012) investigated the relationship between relational identity and the family-relatedness of work decisions. In their article *The family-relatedness of work decisions: A framework and agenda for theory and research*, relational identification was defined as "the extent to which one defines oneself in terms of a given role-relationship" (Greenhaus & Powell, 2012, p. 249). It was suggested that women who strongly identify with family relationships are more likely to consider family situations when making a work-related decision, as they are more concerned with the needs and well-being of family members. For example, women with strong relational values would prefer greater flexibility in determining the timing and place of work. Therefore, it is suggested that future studies should attempt to incorporate relational identity as a variable when studying the relationship between work and family. In particular, the moderating effect of relational identity on the relationship between flexible working arrangements and work-family enrichment, should be investigated.

Lastly, future research could compare female academics' experiences of enrichment across academic departments and faculties[11]. More specifically, these differences could be studied in terms of the extent to which the line supervisor and the organisational culture are supportive of work and family integration. It might be that, in some departments or faculties (guided by the type of industry that the department or faculty represent – e.g. engineering versus nursing), the line manager and culture may be more supportive of work-family integration, than in other departments or faculties. In addition to differences across departments and faculties, a large multilevel study, conducted over different higher education institutions across South

[11] It is acknowledged that such a study would need a large enough sample in each faculty to be able to draw valid conclusions.

Africa, may provide more valuable insight into the importance of support and family-friendly organisational culture, in terms of its effect on enrichment of female academics.

5.5 Limitations of the study

A first limitation of this study is the small sample size as only 84 responses were obtained. The researcher attempted to increase the sample size by sending the survey to a second higher education institution. Furthermore, hard copies of the survey were handed out at a Women's Day celebration event held at one of the institutions. Yet, these efforts did not result in a significant increase in the number of responses received. The inclusion criteria could have restricted the number of responses received. Only female academics with children (i.e. dependents) and some sort of support structure (i.e. a spouse or partner) were included in the sample. Since the sample size was too small to perform traditional Structural Equation Modelling (SEM) with LISREL, the Partial Least Squares (PLS) technique was used instead. This unfortunately limited the testing of feedback loops in the model, which would have been possible if LISREL were used. That is, the bi-directional nature of enrichment could not be tested as PLS does not permit the testing of circular relationships between latent variables. Consequently, one of the original hypothesised paths[12] had to be removed from the Enrichment Structural Model. Moreover, the small sample size significantly constrains the generalisability of the findings to the population of South African female academics.

A second limitation of this study was the use of self-report measures to evaluate respondents' standing on the latent variables. The self-report method is a convenient technique for collecting data from a large number of people at a relatively low cost (Sallis & Saelens, 2000). However, according to Moskowitz (as cited in McDonald, 2008, p. 78), the use of self-administered questionnaires "leave a lot of room for response biases". Response biases that may occur during the use of self-reports include extremity bias, acquiescence bias or social desirability bias (McDonald, 2008). Extremity bias occurs when a respondent respond to items on the extreme ends of the response scale: respondents respond to questions either very positively or very negatively (Paulhus & Vazire, 2007; Roodt & De Kock, 2018). Paulhus and

[12] The path between work-family enrichment and family time had to be removed.

Vazire (2007) define acquiescence bias as the tendency of respondents to agree with questions or statements without considering what the question is asking. Lastly, social desirability bias can be defined as the tendency of respondents to respond to questions in a socially desirable or acceptable manner: they wish to present themselves in a more favourable or positive light (McDonald, 2008; Roodt & De Kock, 2018).

A final limitation of the present study was the use of a cross-sectional design. Measuring academics' experience of enrichment at more than one point in time could be of value for future research. Examining the antecedents and consequences of work-family enrichment over time could enable the researcher to better predict the relationships between latent variables. Therefore, a longitudinal design would be more appropriate in future research studies.

5.6 Managerial implications

The study attempted to obtain knowledge about the complex nomological network underlying work-family enrichment. A thorough understanding of the phenomenon will equip managers with the knowledge to influence their employees' experience of enrichment. According to Michel and Michel (2015, p. 87), "family is one of the most important issues in people's life". By linking work and family in a positive way, organisations can develop a strategic human resource tool that benefits both employees and employers. Therefore, managers and human resource professionals should develop interventions aimed at improving employees' experience of work-family and family-work enrichment. Interventions should not merely attempt to identify strategies to reduce work-family conflict; increasing workplace resources that facilitate enrichment will benefit employees more than just remedial interventions.

According to Chinchilla (as cited in O'Brien, Martinez, Ruggs, Rinehart, & Hebl, 2015) in academia, a discrepancy exists between the implementation of work-family policies and "how they actually affect employees' ability to integrate work with their personal lives" (p. 415). Moreover, Santos and Cabral-Cardoso (2008) noted that work-family programmes and policies are more likely to benefit the organisational image and reputation than the employees' ability to integrate work and family. Unfortunately, traditional gender beliefs are still embedded within universities: practices and norms are constructed around the life experiences of male professors

(Gatta & Roos, 2004; Steinberg et al., 2008). Work-family integration should be part of universities' strategic plans and universities must acknowledge that work-family issues are not "women's problems", but problems that concern the university and society as a whole (Santos & Cabral-Cardoso, 2008; Gatta & Roos, 2004). Consequently, a family-friendly culture is required to enable the translation of family-friendly policies into the day-to-day operations of the university.

According to Jiang and Men (2017), authentic leadership is instrumental in facilitating a culture of transparent communication. In an organisational environment characterised by transparency and dialogue, employees are encouraged to voice their concerns and opposing thoughts. The authentic leader, in turn, listen closely to employees and value their voice and input. Positive workplace experiences have enriching effects which spill over to other life domains. Consequently, it is advised that higher education institutions should invest in systematic leadership training to facilitate greater authentic leadership. In addition to leadership training, university management should conduct regular culture and climate surveys. Culture and climate surveys can, among other things, be used to assess the effectiveness of work-family policies at the university (O'Brien, et al., 2015).

Educating departmental chairs (i.e. line managers) on the antecedents and consequences of work-family enrichment could improve the recognition of the positive spillover effect between the work and family domain within organisations. Knowledge on how, and that positive spillover does indeed increase enrichment can be translated into strategies to promote the satisfaction, motivation, commitment, performance and efficiency of female academics. Departmental chairs should be sensitised about the importance of support for female academics' work and family responsibilities and should encourage female academics to utilise available family-friendly benefits (O'Brien et al., 2015). By facilitating work-family and family-work enrichment in the workplace, line managers can therefore promote positive workplace attitudes and foster positive behavioural tendencies. For example, based on research results, organisations can stimulate the experience of enrichment by designing jobs to provide more autonomy, variety, significance and feedback to create a supportive environment for social interactions within the organisations.

Behson (as cited in Mishra & Bhatnagar, 2019) found that informal means of organisational support (e.g. supervisor support and job autonomy) explained more variance in employee outcomes than formal means of organisational support (e.g. work schedule flexibility). Consequently, the absence of supportive supervisors may jeopardise female academics' performance and career prospects. Training supervisors to deal with work-family integration issues, creates a family-supportive culture in which employees feel better equipped to deal with work and family matters. By communicating their awareness and support of family-friendly policies, and by helping female academics understand their options in using family-friendly policies, line managers may enable female academics to better manage work and family life (O'Brien et al., 2015).

To facilitate greater work-family enrichment, Grzywacz, Almeida, and McDonald (2002) suggest the implementation of programmes and services to assist employees with work-family challenges. Childcare responsibilities remain one of the challenges faced by women in academia. More specifically, the lack of childcare services on campus was identified as a recurring problem among female academics (Gatta & Roos, 2004). According to Thomas and Ganster (as cited in O'Brien et al., 2015) organisation-supported child care-resources are linked to lower levers of work-family conflict. For example, at Rice University in Houston, Texas, faculty, staff and students are provided with childcare assistance in the form an early learning facility, the Rice Children's Campus. The Children's Campus is located adjacent to the campus and is operated by the Centre for Early Childhood Education. In addition to the Children's Campus, Rice University also offers summer programmes to staff and their families, back-up care programmes and a lactation room for nursing mothers (Rice University, 2019). Higher education institutions could signal a positive move towards being serious about addressing work family conflict issues, and capitalising on enrichment, by investing in organisation-supported child care-resources, similar to that of Rice University.

Moreover, child care-resources should also be extended to older children. Harvey et al. (2018) found that the impact of parenting on a working academic does not reduce as children grow older: parenting teenagers present unique challenges that are different to those associated with early years of childhood. Children in high school are no longer eligible for after school care, but are too young to be at home alone.

Consequently, it is important that universities provide support to parents with children of different ages: there is no one-size-fits-all approach to reduce the impact of parenting on a female academic's career.

In addition to child care assistance, female academics also express the need for primary caregiver leave (O'Brien et al., 2015; Harvey et al., 2018). Primary caregiver leave is particularly relevant for female academics recovering from childbirth and for those who are breastfeeding. Although primary caregiver leave is meant to be a benefit, some female academics will refrain from using it as they believe that it will hinder their career advancement. Consequently, higher education institutions should communicate the benefits associated with primary caregiver leave to ensure that academics feel secure and protected when using this benefit (O'Brien et al, 2015).

In their article, *Policies that make a difference: Bridging the gender equity and work-family gap in academia*, O'Brien et al. (2015) suggest establishing a faculty development centre to provide support to academics at various career stages. Programmes offered at the centre could include problem-solving instruction, time management instruction, conflict resolution instruction or basic need fulfilment training (Greenhaus & Powell, 2006). The provision of child care referrals and parenting programmes, peer support groups or mentoring programmes could also assist female academics in better managing the conflicting demands of work and family (Grzywacz et al., 2002; O'Brien et al., 2015). These programmes could lead to a variety of positive individual benefits. The family-friendly benefits suggested above can potentially buffer the stress of managing multiple roles and therefore increase enrichment.

5.6 Conclusion

The purpose of the study was to develop and test a nomological network of the factors that influence female academics' experience of work-family and family-work enrichment in an attempt to gain a better understanding of the psychological mechanisms underlying enrichment as well as the resources that facilitate greater enrichment. The underlying theoretical foundation of the study was based on Greenhaus and Powell's (2006) model of work-family enrichment which lead to a greater understanding of the pathways through which resources are transferred from one role to another. An investigation of current literature on the topic of enrichment

and its antecedents lead to the identification of work and family resources that facilitate greater enrichment. The work resources included organisational support, flexible working arrangements, a family-friendly organisational culture and occupational coping self-efficacy. The family resources encompassed family support and family time. After formulating and statistically testing 10 hypotheses, 5 of the hypotheses were found to be significant. The findings of the study provide higher education institutions with insight on the factors (both home and family) that lead to greater work-family and family-work enrichment. Consequently, they can develop organisational policies and practices to enhance experiences of enrichment (work-family and family-work) among female academics.

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APPENDIX A: ETHICAL CLEARANCE APPROVAL

UNIVERSITEIT
STELLENBOSCH
UNIVERSITY

APPROVAL NOTICE
New Application

23 August 2018

Project number: SU-HSD-004500

Project title: The development and empirical evaluation of a structural model of enrichment among female academics.

Dear Petro van Zyl

Your new application received on **27 June 2017** was reviewed and approved by the REC: Humanities.

Ethics approval period: 27 June 2017 – 26 June 2020

GENERAL COMMENTS:

The REC had received the Departmental Ethics Screening Committee: Industrial Psychology approval of this application on 27 June 2017. The REC: Humanities unfortunately did not issue a letter confirming such clearance, due to system migration. Upon review of this submission, the REC: Humanities herewith ratifies this low risk research project.

Please take note of the General Investigator Responsibilities attached to this letter. You may commence with your research after complying fully with these guidelines.

If the researcher deviates in any way from the proposal approved by the REC: Humanities, the researcher must notify the REC of these changes.

Please use your SU project number (**SU-HSD-004500**) on any documents or correspondence with the REC concerning your project.

Please note that the REC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

FOR CONTINUATION OF PROJECTS AFTER REC APPROVAL PERIOD

National Health Research Ethics Committee (NHREC) registration number: REC-050411-032.
The Research Ethics Committee: Humanities complies with the SA National Health Act No.61 2003 as it pertains to health research. In addition, this committee abides by the ethical norms and principles for research established by the Declaration of Helsinki (2013) and the Department of Health Guidelines for Ethical Research: Principles Structures and Processes (2nd Ed.) 2015. Annually a number of projects may be selected randomly for an external audit.

Please note that a progress report should be submitted to the Research Ethics Committee: Humanities before the approval period has expired if a continuation of ethics approval is required. The Committee will then consider the continuation of the project for a further year (if necessary)

If you have any questions or need further help, please contact the REC office at cgraham@sun.ac.za.

Sincerely,

Clarissa Graham

REC Coordinator: Research Ethics Committee: Human Research (Humanities)

UNIVERSITY of the WESTERN CAPE

DEPUTY REGISTRAR: Academic Administration
Administration Building, 1st Floor
ashaikjee@uwc.ac.za, nschoeman@uwc.ac.za
021 959 2110

27 January 2019

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT THE UNIVERSITY OF THE WESTERN CAPE

Name of Researcher	:	Petro Elsje van Zyl
Research Topic	:	The development and empirical evaluation of a structural model of enrichment among female academics
Date of issue	:	27/01/2019
Reference number	:	UWCRP270119PEZ

This serves as acknowledgement that you have obtained and presented the necessary ethical clearance and your institutional permission required to proceed with the above referenced project.

Approval is granted for you to conduct research at the University of the Western Cape for the period **27 January 2019** to **26 June 2020** (or as determined by the validity of your ethics approval). You are required to engage this office in advance if there is a need to continue with research outside of the stipulated period. The manner in which you conduct your research must be guided by the conditions set out in the annexed agreement: *Conditions to guide research conducted at the University of the Western Cape.*

The University of the Western Cape promotes the generation of new knowledge and supports new research. It also has a responsibility to be sensitive to the rights of the students and staff on campus. This office will require of you to respect the rights of students and staff who do not wish to participate in interviews and/or surveys.

It is also incumbent on you to first furnish this office with a copy of the proposed publication should you wish to reference the University's name, spaces, identity, etc. prior to public dissemination.

Please be at liberty to contact this office should you require any assistance to conduct your research or specifically require access to either staff or student contact information.

Yours sincerely

DR AHMED SHAIKJEE
DEPUTY REGISTRAR: ACADEMIC ADMINISTRATION
OFFICE OF THE REGISTRAR

APPENDIX B: INFORMED CONSENT & QUESTIONNAIRE

UNIVERSITEIT•STELLENBOSCH•UNIVERSITY
jou kennisvennoot • your knowledge partner

STELLENBOSCH UNIVERSITY

CONSENT TO PARTICIPATE IN RESEARCH

THE DEVELOPMENT AND EMPIRICAL EVALUATION OF A STRUCTURAL MODEL OF ENRICHMENT AMONG FEMALE ACADEMICS

You are asked to participate in a research study conducted by Miss Petro van Zyl from the Industrial Psychology Department at Stellenbosch University. The results obtained will contribute to the completion of a Masters of Commerce degree in Industrial Psychology. You are selected as a possible participant in this study because you can give valuable input to the data gathering process of this study.

1. PURPOSE OF THE STUDY

The purpose of the research study is to investigate the factors which influence female academics' experience of work-family and family-work enrichment. De Klerk, Nel and Koekemoer (2012) define enrichment as the extent to which experiences in one role can improve the quality of life in another role. Enrichment presupposes that work and family roles may have a beneficial influence on one another. According to the concept of enrichment, resources and/or experiences gained from work can improve functioning and wellbeing in the family (work-family enrichment). Similarly, resources and/or experiences gained from the family can improve functioning and wellbeing at work (family-work enrichment). This study will focus on the home and family factors which could potentially influence female scholars' experience of work-family enrichment and family-work enrichment.

2. PROCEDURE

If you volunteer to participate in this study, we would ask you to complete a short online questionnaire that would take approximately 40 minutes to complete. You would be asked to provide some demographic information (age, ethnic group, language preference and educational level), as well as the position you are employed in at the University. You will then be asked to complete a series of questions relating to your experience of enrichment (both work-family and family-work). There are no right or wrong responses; we are merely interested in how you view yourself.

3. POTENTIAL RISKS AND DISCOMFORTS

There exist no foreseeable risks, discomforts or inconveniences should you decide to participate in the study. This is a relatively risk-free study. The only potential risks and/or discomforts that could result from participating in this study include the time that is required to fill out the questionnaire and the potential discomfort of having to evaluate yourself. Filling out the questionnaire may make you think about things that you have to do on a daily basis, which you may not particularly enjoy. You should understand that none of this data will be shared with any person in a management position, and that you will not be required to write your name on the questionnaire. Moreover, you will be asked to think about the extent to which coping resources and supportive organisational resources are available to you (i.e. the extent to which your co-workers and supervisors are family-supportive as well as the extent to which your organisation is family-supportive). Reflecting on the availability of coping resources and supportive organisational resources may cause some discomfort. If you experience any severe emotional distress during the completion of the questionnaire, please be advised that you have the right to discontinue participation at any stage, or decide not to complete some of the items in the questionnaire. Please note that when completing the online questionnaire, the system does not allow you to skip a question, but if you feel you want to discontinue, you may at any stage. The data will only be utilised for research purposes and no consequences, positive or negative, will result from the findings.

In the event that you experience emotional distress please contact the Employee Assistance Provider of the University, situated in the Wellness unit, for counselling

and support services. The details for doing so can be found on the university website at the following link: http://www0.sun.ac.za/hr/wellness/af/programme/wop/

4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

Although the study will not benefit you directly, changes in the organisational environment that may enhance enrichment, could be suggested from this study. The experience of enrichment benefits the individual worker as well as the organisation. By increasing the resources that facilitate enrichment, organisations can improve the well-being of their employees. Enrichment has the potential to improve an individual's mental health, physical health, life satisfaction and the quality of personal relationships. Furthermore, enrichment has a meaningful influence on an employee's productivity, performance, satisfaction, absenteeism and turnover intention.

5. CONFIDENTIALITY AND ANONYMITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. You will not have to fill in your name on the questionnaire; hence your responses will be anonymous. Access to the data will be restricted to the researchers (Petro van Zyl and Prof G Görgens) by storing the data on a password-protected computer, and by only reporting aggregate statistics of the sample. The results of this study will be published in the form of an academic thesis and academic peer-reviewed article in an academic journal and confidentiality of all data will be maintained at all times.

6. PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

7. IDENTIFICATION OF INVESTIGATORS

If you have any concerns about the research, feel free to contact Petro van Zyl (petrovzyl101@gmail.com / 073 222 4311) or Prof G Görgens (ekermans@sun.ac.za / 021 808 3596).

8. RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the Division for Research Development, Stellenbosch University.

INFORMED CONSENT (please tick the appropriate box):

I hereby consent to voluntarily participate in this study under the stipulated conditions. I therefore agree that my data may be integrated into a summary of the results of all the questionnaires without identifying me personally. ☐

I don't want to participate in this study. ☐

Please fill in the necessary information or draw an X in the appropriate block.

What is your relationship status?

Single-mother (divorced / separated / widowed)	
Married	
Living together	

Do you have children?

Yes	
No	

If yes, how many children do you have?

1	
2	
3	
4	
5	
6 or more	

How old are they?

	Infant (0 to 12 months)	**Toddler (1 to 3 years)**	**Pre-school (3 to 5 years)**	**Primary school (6 to 12 years)**	**Adolescent (13 to 18 years)**	**Older than 18 years**	**Not applicable**
Child 1							
Child 2							
Child 3							
Child 4							

Child 5							
Child 6							

Where do your children live?

_____

What is your age?

_____

Please specify your ethnicity.

African	
White	
Coloured	
Indian	
Other (Please specify): _____	

Please indicate your first language

Afrikaans		South Sotho	
English		North Sotho	
Xhosa		Tsonga	
Venda		Tswana	
Zulu		Swazi	
Ndebele		Other (Please specify): _____	

Please indicate your second language.

Afrikaans		South Sotho	
English		North Sotho	
Xhosa		Tsonga	

Venda		Tswana	
Zulu		Swazi	
Ndebele		Other (Please specify): _____	

What is your highest qualification?

Lower than Grade 10 (Std 8)	
Grade 10 / Std 8	
Grade 12 / Matric	
Post-matric certificate	
Diploma	
Undergraduate Degree	
Post-graduate: Honours	
Post-graduate: Masters	
Post-graduate: PhD	

At what faculty are you employed?

AgriSciences	
Art and Social Sciences	
Economic and Management Sciences	
Education	
Engineering	
Law	
Medicine and Health Sciences	
Military Science	
Science	
Theology	

Please indicate the department in which you work?

_____

Which of the following most closely matches your job title?

Junior lecturer	
Lecturer	
Senior Lecturer	
Associate Professor	
Professor	
Contract Researcher	
Research Assistant	
Post-Doctorate	
Other (Please specify): _____	

Are you employed as a part-time (e.g. 5/8 post) or full-time employee at the University?

_____

Please indicate your working hours (i.e. the start and ending times of your working day).

_____

Please indicate your length of service in the organisation.

_____

Please select an option from "Strongly disagree" to "Strongly agree" which best indicates your response.

My FAMILY LIFE is improved by…					
	Strongly disagree	**Disagree**	**Neither agree or disagree**	**Agree**	**Strongly agree**
1) …the skills I have developed at work.	0	1	2	3	4
2) …my work showing me different viewpoints.	0	1	2	3	4
3) …my work that helps me to understand different viewpoints.	0	1	2	3	4
4) …the viewpoints I have learned through my work.	0	1	2	3	4
5) …my work showing me different perspectives.	0	1	2	3	4
6) …the perspectives I have learned through my work.	0	1	2	3	4
7) …my work that puts me in a good mood.	0	1	2	3	4
8) …my work that makes me feel happy.	0	1	2	3	4
9) …being energised at work.	0	1	2	3	4
10) …managing my time at work.	0	1	2	3	4
11) …managing my pace at work.	0	1	2	3	4

12) …managing my time schedule at work.	0	1	2	3	4
13) …keeping a sufficient pace at work.	0	1	2	3	4
14) …using my time effectively at work.	0	1	2	3	4
15) …obtaining a work schedule.	0	1	2	3	4
16) …maintaining good relationships with my colleagues.	0	1	2	3	4
17) …the support I receive from my colleagues.	0	1	2	3	4
18) …having good relationships at work.	0	1	2	3	4

My WORK is improved by…

	Strongly disagree	**Disagree**	**Neither agree or disagree**	**Agree**	**Strongly agree**
1) …the skills I learn in my family life.	0	1	2	3	4
2) …my family showing me different viewpoints.	0	1	2	3	4
3) …the values I have learned through my family life.	0	1	2	3	4
4) …obtaining values to which I am exposed to in my family life.	0	1	2	3	4

5) …the perspectives I have learned through my family.	0	1	2	3	4
6) …my sense of accomplishment I have developed in my family life.	0	1	2	3	4
7) …the self-worth I have in my family life.	0	1	2	3	4
8) …the renewed assurance I gain through my family life.	0	1	2	3	4
9) …my family that puts me in a good mood.	0	1	2	3	4
10) …being optimistic about my family life.	0	1	2	3	4
11) …maintaining my time schedule in my family life.	0	1	2	3	4
12) …managing my time in my family life.	0	1	2	3	4
13) …keeping a sufficient pace in my family life.	0	1	2	3	4
14) …the support I receive from my family.	0	1	2	3	4
15) …maintaining good relationship with my family.	0	1	2	3	4
16) …being supportive in my family life.	0	1	2	3	4

Please select an option from "Strongly disagree" to "Strongly agree" which best indicates your response.

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
1) When I succeed at work, members of my family show that they are proud of me.	1	2	3	4	5
2) My family members burden me with things that they should handle on their own.	1	2	3	4	5
3) My family members do not seem very interested in hearing about my working day.	1	2	3	4	5
4) When something at work is bothering me, members of my family show that they understand how I'm feeling.	1	2	3	4	5
5) Members of my family cooperate with me to get things done around the house.	1	2	3	4	5
6) When I talk with them about my work, my family members don't really listen.	1	2	3	4	5
7) Someone in my family asks me regularly about my work day.	1	2	3	4	5
8) If I had to go out of town for my job, my family would have a hard time managing	1	2	3	4	5

household responsibilities.					
9) As long as I'm making money, it doesn't really matter to members of my family what job I have.	1	2	3	4	5
10) It seems as if my family members are always demanding me to do something for them.	1	2	3	4	5
11) I feel better after discussing job-related problems with a family member.	1	2	3	4	5
12) My family members do their fair share of household chores.	1	2	3	4	5
13) When I have a though day at work, family members try to cheer me up.	1	2	3	4	5
14) Members of my family are interested in my job.	1	2	3	4	5
15) I have difficulty discussing work-related activities with members of my family.	1	2	3	4	5
16) When I'm frustrated by my work, someone in my family tries to understand.	1	2	3	4	5
17) Members of my family are willing to straighten up the house when it needs it.	1	2	3	4	5

18) Members of my family always seem to make time for me if I need to discuss my work.	1	2	3	4	5
19) I wish members of my family would care more about what I do at work.	1	2	3	4	5
20) Members of my family often provide a different way of looking at my work-related problems.	1	2	3	4	5
21) My family leaves too much of the daily details of running the house to me.	1	2	3	4	5
22) Members of my family don't want to listen to my work-related problems.	1	2	3	4	5
23) Members of my family seem bored when I talk about my job.	1	2	3	4	5
24) Someone in my family helps me out by running errands when necessary.	1	2	3	4	5
25) Members of my family have little respect for my job.	1	2	3	4	5
26) Members of my family are happy for me when I am successful at work.	1	2	3	4	5
27) Someone in my family helps me feel better when I'm upset about my job.	1	2	3	4	5

28) If my job gets very demanding, someone in my family will take on extra household responsibilities.	1	2	3	4	5
29) I usually find it useful to discuss my work problems with family members.	1	2	3	4	5
30) Members of my family want me to enjoy my job.	1	2	3	4	5
31) My family members give me too much responsibility for household repairs and maintenance.	1	2	3	4	5
32) Members of my family enjoy hearing about my achievements at work.	1	2	3	4	5
33) I can depend on members of my family to help me out when I'm running late for work.	1	2	3	4	5
34) My family members have a positive attitude toward my work.	1	2	3	4	5
35) When I have a problem at work, my family members seem to blame me.	1	2	3	4	5
36) Members of my family help me with routine household tasks.	1	2	3	4	5
37) When I have a problem at work, members of my family express concern.	1	2	3	4	5

38) I look to family members for reassurance about my job when I need it.	1	2	3	4	5
39) If I have to work late, I can count on someone in my family to take care of everything at home.	1	2	3	4	5
40) I feel comfortable asking members of my family for advice about a problem situation at work.	1	2	3	4	5
41) My family members are sympathetic when I'm upset about my work.	1	2	3	4	5
42) Too much of my time at home is spent picking up after my family members.	1	2	3	4	5
43) When I'm having a difficult week at my job, my family members try to do more of the work around the house.	1	2	3	4	5
44) If I have a problem at work, I usually share it with my family members.	1	2	3	4	5

Please indicate how frequently you have quality / meaningful family time (i.e. with spouse / children) per week.

Family. Spouse and / or children.

Family time. Spending quality time with family, for example (1) talking to or playing with spouse and / or children, (2) leisure activities such as watching a movie with your children, (3) social activities such as talking to and playing with family, or (4) eating meals together with your family.

	Once a week	**Twice a week**	**Three times a week**	**Four times a week**	**Five times a week**	**Six times a week**	**Seven times a week**
Talking to or playing with spouse and/or children.	1	2	3	4	5	6	7
Leisure activities (such as watching a movie with your children).	1	2	3	4	5	6	7
Social activities (such as talking to an playing with family).	1	2	3	4	5	6	7
Eating meals together with your family.	1	2	3	4	5	6	7

How refreshed / rejuvenated do you feel after a meaningful family time session?

	Not at all	**Slightly**	**Somewhat**	**Very much**	**Completely**
Talking to or playing with spouse and/or children.	1	2	3	4	5
Leisure activities (such as watching a movie with your children).	1	2	3	4	5
Social activities (such as talking to an playing with family).	1	2	3	4	5
Eating meals together with your family.	1	2	3	4	5

Do you have flexible work arrangements available to you in your department / work unit?

Temporal flexibility. The degree to which an individual chooses where to work and when to work within certain guidelines offered by the organisation.

Yes	
No	

Please indicate the type of flexible working arrangement(s) available to you in your department / work unit.

	Yes	**No**
Flexitime. A schedule that requires an employee to work a specific number of hours, often including certain core hours, but offers flexibility in regard to beginning and ending times for each day.		
Compressed work week**.** A schedule that decreases the number of days in the work week, while increasing the number of hours worked per day.		
Telecommuting. Telecommuting allows an employee to work from home at least two days a week on a computer from home on a relatively permanent basis.		
Part-time work**.** Employment which requires an employee to work fewer hours each week than full-time employment (i.e. less than 40 hours per week).		

Please indicate the frequency to which such arrangements are used on a weekly basis.

	Never	**Rarely**	**Sometimes**	**On a regular basis**	**On an everyday basis**
Flexitime	1	2	3	4	5

Compressed work week	1	2	3	4	5
Telecommuting	1	2	3	4	5
Part-time work	1	2	3	4	5

Please list any other temporal flexibility work options available at your company, not already listed above.

_____

Select an option from "Strongly disagree" to "Strongly agree" which best indicates your response.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1) My supervisor is fair and doesn't show favouritism in responding to employees' personal or family needs.	1	2	3	4	5
2) My supervisor accommodates me when I have family or personal business to take care of – for example, medical appointments, meeting with child's teacher, and so forth.	1	2	3	4	5
3) My supervisor understands when I talk about personal or family issues that affect my work.	1	2	3	4	5
4) I feel comfortable bringing up personal or family issues with my supervisor	1	2	3	4	5
5) My supervisor really cares about the effects that work demands have on my personal and family life.	1	2	3	4	5
6) I feel I am really a part of the group of people I work with.	1	2	3	4	5
7) I have the support from co-workers that I need to do a good job.	1	2	3	4	5

8) I have support from co-workers that helps me to manage my work and personal or family life.	1	2	3	4	5

Please select an option from "Strongly disagree" to "Strongly agree" which best indicates your response.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1) There is an unwritten rule at my place of employment that you can take care of family needs on company time.	1	2	3	4	5
2) At my place of employment, employees who put their family or personal needs ahead of their jobs are not discriminated against.	1	2	3	4	5
3) If you have a problem managing your work and family responsibilities, the attitude at my place of employment is: "You made your bed, now lie in it!"	1	2	3	4	5
4) At my place of employment, employees do not have to choose between advancing in their jobs and devoting attention to their family or personal lives.	1	2	3	4	5

The following statements describe occupational stressful situations which employees may cope more or less easily with.

Please rate how confident you feel you can easily cope with:

	Not at all easy to cope with	Slightly easy to cope with	Fairly easy to cope with	Easy to cope with	Extremely easy to cope with
1) Difficulties with students.	1	2	3	4	5
2) Relational difficulties with your supervisor.	1	2	3	4	5
3) Insufficiently defined procedures.	1	2	3	4	5
4) Difficulties with a student's parents.	1	2	3	4	5
5) Difficulties in deciding how to do the work.	1	2	3	4	5
6) Physical tiredness.	1	2	3	4	5
7) Doing a lot of tasks at the same time.	1	2	3	4	5
8) Relational difficulties with colleagues.	1	2	3	4	5
9) Difficulties in supervising student research projects.	1	2	3	4	5
10) Difficulties in publishing research	1	2	3	4	5
11) Difficulties in segmenting time into research and teaching responsibilities.	1	2	3	4	5

Thank you for taking the survey.